MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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BALTIMORE, SEPTEMBER 13, 1906.

A PREMATURE FROST.

Cartoonists have missed their opportunity in not showing Southern "statesmen" who a week or two ago were falling over one another in an effort to board what they thought was the Bryan band wagon, wildly scrambling from the tail end of what they have discovered to be an ice wagon and hoping that nobody saw them.

Seriously—Was the Bryan boom manipulated by some shrewd Democratic politician who realized that Bryan had but to be given an opportunity and he would surely commit political suicide, or was it brought forth by some still shrewder politician who believed that in the excitement caused by Bryanism the country would be forced to nullify Mr. Roosevelt's solemnly-avowed purpose not to be a candidate in 1908?

COTTON.

For the second time since the turn of the century Southern cotton mills took during the season ended August 31 a greater number of bales of American cotton than Northern mills took, the takings having been 2,374,225 bales by Southern mills and 2,349,478 bales by Northern mills. The takings this year by Southern mills were more than double their takings 10 years ago and more than four times their takings in 1890. The progress of Southern mills in comparison with mills in the rest of the country during the past 10 years is shown in the following table based upon figures from the valuable annual report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, which in more elaborate form is published on other pages of this week's issue of the MANUFACTURERS' RECORD:

Year ended August 31	Southern mills. Bales.	Northern mills. Bales.	Total. Bales.
1897.....	1,042,671	1,804,680	2,847,351
1898.....	1,231,841	2,211,740	3,443,581
1899.....	1,399,399	2,190,095	3,589,494
1900.....	1,597,112	2,068,300	3,665,412
1901.....	1,620,931	1,967,570	3,588,501
1902.....	1,937,971	2,050,774	3,988,745
1903.....	2,000,729	1,767,635	3,968,364
1904.....	1,919,252	2,026,967	3,946,219
1905.....	2,163,506	2,282,145	4,445,650
1906.....	2,374,225	2,349,478	4,723,703

As compared with 1905 American cotton mills show this year a notable advance. In 1905 they took 4,445,650 bales, or 32.7 per cent., of the 13,565,885 bales of the commercial crop of that year. In 1906 they took 4,723,703 of the 11,345,988 bales of the commercial crop, or 41.6 per cent. of the total. Still, with this advance and in spite of the fact that had the supply of operatives, especially in the South, been equal to the spindle equipment, the takings by American mills would have probably reached 5,000,000 bales, or nearly half of the total commercial crop, American textile opportunities, resting upon the unexcelled advantages of the South as a cotton grower and the rapid expansion of the chances in the home market, with an annual increase of between 1,500,000 and 2,000,000 in the population of the United States, are not being realized as they should be. Cotton manufacturers, in contemplation of the fact that while in the last fiscal year we imported $63,043,322 worth of manufactures of cotton, we exported but $52,944,033 worth of manufactures of cotton, should sink all differences of opinion about supposed competition between cotton mills in different sections of the country in a united effort to give the full advantage of American markets to American mills, to develop American markets to the full and to place whatever surplus of goods there may be in foreign markets. It will take time, of course. But there is no reason why American cotton manufacturers should not have a standing in world markets at least equal to that of British manufacturers, particularly in view of the fact that the market is coming so rapidly to the United States through increase in population.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 68, 69 and 70.

VITAL DEFECT IN RAILROAD RATE BILL.

Announcement by leading railroad systems that they will sell 1000-mileage books for $20 for the convenience of men traveling frequently or for great distances, a rate lower than that given men traveling but a short distance or infrequently, calls attention to an oversight of a vital point on the part of the concocters of the recent amendment to the interstate commerce act known as the railroad rate regulation bill. Individuals who insist that the Government must undertake to equalize artificially the natural inequalities in society must stand aghast at this plan of the railroads to intensify for one set of travelers an advantage over another set.

IMMIGRANTS FOR VIRGINIA.

Hon. G. W. Koiner, State Commissioner of Agriculture of Virginia, who has spent much of the summer in Europe and Canada for the purpose of building up a steady movement of desirable immigrants to Virginia, has returned home confident of excellent results. Commissioner Koiner has secured good agents in Great Britain and on the Continent who will supplement the work of a circulation of a pamphlet printed in English, Norwegian, Danish and German setting forth the advantages and opportunities of a home in Virginia. Mr. Koiner has been specially interested in efforts to bring to this country a good class of farmers, dairymen, chicken-raisers, fruit-growers, etc., and he believes that the money spent upon immigration work will turn out to be the best expenditure Virginia has ever made. Though the special appropriation was a comparativly small amount, only $10,000, Virginians have assurance in the work already accomplished by Commissioner Koiner that the money has been handled in a way calculated to bring most practical results. The beauty in such an investment by a State, when intelligently administered, is that properly-selected and heartily-welcomed first comers are pretty sure to become volunteer immigration agents of the most effective sort.

AN UNWISE COTTON PLAN.

Few persons who have closely followed the work of the Southern Cotton Association since its organization less than two years ago, and who appreciate the valuable work accomplished by it for the cotton growers and the South generally, can consider with anything but regret the proposition reported as having been advanced at the meeting of the executive committee of the association at Hot Springs, Ark., looking to the turning of the Association into a corporation with a capitalization of $100,000,000 for the purpose of buying, selling and warehousing cotton, so as to enforce the minimum price for cotton to be placed by the Association. The resolution was submitted to a special committee for report at the next meeting of the executive committee. Nobody can reasonably oppose the organization of a great corporation upon a strictly business basis for the warehousing of cotton in bond as a basis for enlarged freedom in safe financial transactions in the South. But it is impossible to perceive anything but shortsightedness and unwisdom in a plan for the Southern Cotton Association to sink its advisory character in such an undertaking. Such a policy can only weaken the influence of the Association. It can do a great work in the development of the cotton-warehouse idea by stimulating the building of warehouses, but it should not itself enter into such a vast scheme as is reported to have been suggested.

CEMENT PRODUCTION AND THE FUTURE DEMAND.

The announcement that the Northern Central Railway will build in Baltimore of reinforced concrete as an addition to its grain elevator facilities 32 circular bins 24 feet in diameter and 70 feet deep, with an aggregate capacity of 1,000,000 bushels of grain, is another striking illustration of the almost innumerable uses to which concrete construction is being put. Every new step such as this in the utilization of concrete construction brings to consideration the really marvelous advance in the production of Portland cement and gives some hint of the development of an industry the growth of which within the last five years has been more wonderful than the growth of any other industry in the world's commercial history.

A few days ago the announcement was sent out from Washington that upon the construction of some of the locks of the Panama Canal an aggregate of nearly 92,000 carloads of cement would be required. This, as stated in the daily papers, was an average of 125 carloads a day for two years, and was mentioned as though it was of such stupendous volume that it would be difficult for the cement producers of America to take care of the trade. Great, indeed, is the quantity. It about equals one-fourth of the total Portland-cement production of the United States last year, and if the demand for this cement for Panama work existed at the moment it would be impossible for the producers of this country to meet it. But it ought to be possible for this country to develop this industry with sufficient rapidity not only to take care of the rapid expansion of the local demand, but at the same time to make certain of being able to supply all that will be needed in the construction of the Panama Canal.

With the vast cement resources of the country, with capital sufficient for the development of any industry which promises a sure and profitable return, the business people of the United States ought to be equal to the emergency. But a study of the whole cement question and the growth of the industry during the last few years is of striking interest and has no parallel in any other business enterprise in this country or abroad.

The production of Portland and natural-rock cement for each year since 1900 has been as follows:

	Natural cement.	Portland cement.	Total of natural and Portland cement.
1900.....	8,383,519	8,482,020	16,865,539
1901.....	7,084,823	12,711,225	19,796,048
1902.....	8,044,305	17,230,644	25,274,949
1903.....	7,030,271	22,342,973	29,373,244
1904.....	4,866,331	26,505,881	31,372,212
1905.....	4,472,049	35,246,812	39,719,861

During that period the importation of Portland cement has declined from 2,321,000 barrels in 1900 to 896,000 barrels last year. There has been also a steady decline in the production of natural cement, the output of which in 1905 was but little more than one-half that of 1900, but in Portland cement the

growth calls for superlatives in attempting to tell the story. In 1900 the total output of Portland cement was 8,482,000 barrels, in the next year there was a gain of 4,300,000 barrels, in the following year a gain of 4,500,000 barrels, the next year 5,000,000, and the following year 4,200,000, while in 1905 the gain over 1904 was 8,700,000 barrels. Between 1900 and 1905, both included, six years, the output more than quadrupled. It is not to be expected that the same percentage of increase will continue during the coming six years, for should it do so we would have in 1912 an output of about 150,000,000 barrels, and this hardly seems possible. But it does seem to be entirely reasonable to believe that the increase in the actual number of barrels during the next six years will be as great as the average of the last two years, or 6,500,000 barrels. On this basis we would add to this industry within the next six years a gain of nearly 39,000,000 barrels on top of the 35,000,000 barrels produced in 1905, or nearly 75,000,000 barrels six years hence. This would mean the doubling of the entire industry, and at first blush such a tremendous increase would hardly seem reasonable, but considering how rapidly concrete construction is supplementing iron and steel and lumber, and how it is creating many new forms of consumption exclusively its own, no good reason can be advanced why the progress of the next six years shall not as a minimum equal the average progress of the last two years. As a matter of fact, when one notes the marvelous change that has come about in the uses of cement and concrete, in the growth of wealth and population and building activity of the country, in the expansion of iron and steel beyond the average man's conception—an expansion which but for the aid which cement is giving to construction work would already have resulted in an iron and steel famine, it is conceivable without undue optimism that six years hence the country will just as readily absorb 75,000,000 barrels of Portland cement as it last year absorbed 35,000,000, and will this year probably absorb over 40,000,000. Discussing the possibility of this industry, Mr. Edwin C. Eckel of the United States Geological Survey, an accepted authority upon cement, in his United States geological report of 1905 on cement states that it is estimated that all the cement plants of the country could produce about 129,000 barrels per day, and "that before the end of 1906 the total possible daily production will exceed 140,000 barrels." With this total possible output of all the plants in the country (and the total estimated capacity is very rarely reached), Mr. Eckel's estimate would give a possible production by the end of this year of 42,000,000 barrels. It is important that while avoiding speculative building of new plants, many of which might be badly located and not properly financed or managed, there should be a very great development of cement production in order to meet the increasing demand and prevent such high prices as to restrict consumption. Even now there is a serious fear that the demand may run so far ahead of production as to result in exorbitant prices. It is to be hoped that this may be avoided.

Mr. W. E. Dunwody, secretary and treasurer of the Standard Brick Co., manufacturer of all grades of press, ornamental, paving and building brick, Macon, Ga., writes to the MANUFACTURERS' RECORD as follows:

We hand you herewith our check for $25 in payment of subscription for the coming year for the MANUFACTURERS' RECORD and *Daily Bulletin*.

It gives us great pleasure to again acknowledge the great benefit that we have derived from your publications.

Wishing you a continuance of your already wonderful success in promoting the interests of our Southland, etc.

ALIVE TO A MENACE.

In a letter to the editor of the MANUFACTURERS' RECORD Mr. Ashby Watkins of Richmond, Va., referring to an article in the *Religious Herald* of that city, says:

My strong desire to commend and heartily approve your recent article on "The General Education Board" which appeared in the *Religious Herald* leads me to write this, which I hope may encourage you to fight against this patronizing educational scheme, which in its attitude towards the South presents very alluring phases, yet has for its underlying structure a condescending patronage and a harmful influence.

It deals a deathblow to local patriotism. State pride also suffers, as no man can feel a pride and claim an interest in educational institutions and schemes fostered and dominated by foreign factors. This grand old State, as well as every other one in the United States, should originate, develop, support and maintain its schools from funds derived from State taxation and contributions from State or Southern philanthropists, or those whose views or sentiments do not run counter to the cherished institution and opinions of the South.

Local and State taxation and other State funds, either appropriated by legislative enactment or accruing from funds set aside for this purpose, should furnish a nucleus for all necessary schools. To this should be added funds from any benefactor, either of the North or of the South, when they are contributed unconditionally and not through a trust.

Southern educational leaders in their zeal have been ensnared by the golden gleam emanating from the coffers of so-called philanthropists of the North; they have become a veritable lazzaroni, waiting and watching for some Ogden, Carnegie or other millionaire, ready to pounce down on them at a moment's notice, asking for funds for endowment of some college, denominational, it may be, or for general educational purposes, until these migratory gilt-winged birds feel constrained to hand out backsheesh with a hope of seeing their names appear as great educational benefactors.

Independence of thought is stifled, freedom of speech is destroyed, a restraint is put upon the expansion and expression of man's noblest thoughts and highest endeavors.

The greatest institutions of learning, those that have produced the greatest scholars, the noblest type of man, the widest and highest range of thought, the mass of intellect have not nor will ever be the ones most richly endowed, but the institutions which have preserved their independence, those whose teachings can sound a clarion note against this worship of the golden calf, whose noble ends have not been atrophied by a servile dependence on the philanthropy of men whose money was acquired by means diametrically opposed to the teachings of the patronized institutions.

I thank you for the copies of the MANUFACTURERS' RECORD containing your clear and sound observations on both phases of the "Ogden Educational Movement." I had only read excerpts from these articles, and was very glad to read the full text. Under both captions the misleading and dangerous tendencies of each subject is brought to the attention of the Southern people in a clear and logical way; it is an evil glazed with fair and beneficent exterior. I am gratified to find that an editor has thus delved below the surface and shown the trend of the current which has been agitated so much that its direction has been obscured.

Pardon me. I have trespassed too long on your time, and no doubt taxed your patience with an expression of opinion the only excuse for which is that I am so much in sympathy with you and believe so firmly that you are right and that the note you have sounded should find an echo throughout the length and breadth of the South and awaken the people to the dangers lurking in this educational propaganda.

The people have awakened to the dangers of Ogdenism, and no better proof could be desired than the radical veering in the policy of Ogdenism itself. As soon as it had gotten its fingers upon the first million dollars of "philanthropy" it loomed so truculently that it is not surprising that some timid souls, aghast at the potentialities of a million dollars, really imagined that it might carry out its threat that opponents "must get out of the way of the steam road roller or be crushed beneath it." But cool-headed disinterestedness, in knowledge of the real dominant elements in the Movement, and not moved either to terror or to hysterical enthusiasm by the beating of tom-toms and the jingling of dollars, made such persistent exposure of the Movement's methods and its certain ends that truculency yielded to linguistic gymnastics, evasion, contradiction and specious explanation, until the accretion of $10,000,000 to its coffers found the Movement with but a corporal's guard of supporters, with few exceptions having their minds fixed solely upon the coffers.

The Ogden Movement had at last gotten more publicity than it wanted, and its burgoo at Lexington, Ky., this year was a pitiful exhibition of a whistling to keep up one's courage in the dark and dank woods.

Still, the fact that the snail has, if we disregard its quiet turning to agriculture still unfathomed, practically withdrawn into its shell, with little of accomplishment to show except its silvery slime trailed over a few 'institutions of learning," should not lead men concerned for the self-respect and independence of American education to relax their vigilance. The snail is a patient creature and is always likely to protrude when it thinks the coast is clear.

VALUE OF SOUTHERN IRON AND COAL PROPERTIES.

The reorganization of the Southern Steel Co., with an increase of capitalization, bonds, preferred and common stock included, to $29,000,000, and the election of Mr. Moses Taylor, vice-president of the Lackawanna Steel Co. and a member of the firm of Kean, Van Cortlandt & Co., bankers, New York, as president, and Mr. Oakleigh Thorne, president of the Trust Company of America, as one of the directors, illustrates the increasing appreciation on the part of financial interests in New York of the strength of the South's iron and steel making possibilities. It likewise shows how the iron and steel and financial people of the East, who have seen something of the phenomenal advance in the values of Eastern coal and iron properties, are showing by their works their faith in a similar advance in the South. A year or two ago such a capitalization as these strong financial interests have put in this company would have been regarded by the people of the South themselves as beyond a fair valuation, but this only illustrates the fact that since the world began local people have rarely quite appreciated their own opportunities. It often takes the outside man to see and to seize the strategic advantages of almost any new enterprise in any community. For instance, there is scarcely a street-railway system in any important city in the country which was organized and fathered by local people. Very generally outsiders saw the opportunity and made the profit.

While the South has for years known of its vast stores of coal and iron, it has had comparatively little realization of their coming value. Its people simply would not grasp what the MANUFACTURERS' RECORD was preaching. It was but a few years ago when an Alabama business man familiar with the coal and iron interests of the State, though not himself interested in them, expressed to the writer his belief that intrinsically the stock of the Tennessee Coal, Iron & Railroad Co. was hardly worth 10 cents on the dollar; in fact, he had an idea that the bonded indebtedness represented the whole value of the property; and hardly more than a year ago, standing in the office of an unusually well informed broker at a time when Tennessee stock was advancing towards $100 a share, an operator who thought that he knew something of business conditions ridiculed "the wild speculation" which was responsible, in his opinion, for putting Tennessee stock to such a figure. Turning to the speaker the writer said: "Wall Street is credited with knowing 'the price of everything and the value of nothing.' I do not pretend to say what may be the speculative manipulation of the Tennessee stock, nor what will be its ups and downs, but I venture the statement that intrinsically the stock is worth $200 a share, and that in less than three or four years the world will come to a realization of that fact." Only a little over a year ago Baltimore people who had every possible opportunity to learn something of the value of the stock of an Alabama coal and iron company which was controlled here, had so little faith in the future of coal and iron properties that they were unwilling to buy the stock at $10 a share, which within a year had advanced to $70 or $80 a share. Baltimore capitalists owning a 25,000-acre tract of coal land in West Virginia sold it for $10 an acre about six years ago, and within a few months the buyer sold the timber on it for $20 an acre and has within the last few months refused $80 an acre for the coal on 6000 acres of it. It was not so many years ago when one of the leading iron companies of the South, finding it necessary to raise $750,000, was forced to sell $2,000,000 of 4½ per cent. bonds for 37½ cents on the dollar in order to secure money actually needed for development work, and the people who took the bonds did so only in order to try to save what they already had invested in the property. These bonds, of course, are now gilt edge, and $5,000,000 of common stock, which was mainly bonus stock, has since been sold for over $80 a share. A prominent West Virginian once sold 30,000 acres of Pocahontas coal land at 40 cents an acre, now easily worth $150 an acre, and thought he was doing well.

These are but a few of hundreds of illustrations known to everybody who has watched the material advancement of the South. Its own people, sometimes by reason of doubt and discouragement, sometimes by reason of poverty, have parted with much of their birthright for a mess of pottage. It is true that the development of these properties will furnish employment to many thousands of hands and create vast wealth in which the South will of necessity largely share, but the time has come when the people of the South should themselves begin to realize something of the inherent value of their vast resources and take a world-view of the expansion of business and of the ever-increasing value of coal and iron and timber properties, in order that instead of selling such properties, and often wasting what they receive in wild gambling in cotton in Wall Street, they may come to a realization of the fact that there is no safer or better investment known to the business world than the coal and iron and timber properties of the South. Southern people themselves should begin to understand something of the valuation which the Northern iron, steel and moneyed people are putting upon Southern properties, as illustrated in the capitalization of the Southern Steel Co. and

in the present price of the stock of the Tennessee Coal & Iron Co. and other properties. The surplus capital of the South can find at home in the purchase of coal, iron and timber properties, either for development or to hold as an investment, far greater opportunities than anywhere else in the world. It is true that for many years the iron interests of the South had to struggle for recognition and had to labor under many disadvantages in trying to secure capital. In this respect they had to go through a period exactly similar to the iron and steel interests of Pennsylvania prior to the war. It is an interesting fact that between 1840 and 1860 the iron people of Pennsylvania had but little credit, and it was with great difficulty that money could be secured for any purposes by iron concerns. The banks of Pennsylvania were more ready to lend money to any other class of business people than to iron men. As this industry had to fight its way in Pennsylvania against great odds until it became the dominant power in the State, so the iron and coal interests of the South for many years had an uphill fight, discredited at home and without any strong financial friends in the North except those who, like the manipulators of the Tennessee Coal & Iron Co. in the years past, used it far more for Wall Street gambling than for the real development of the property. It may be true that the Wall Street speculative element is still too largely for the best good of the South interested in the Tennessee and some other properties, but those who now control the situation are at least determined to make their profit by large actual developments through the building of furnaces and steel works. This great industry is now on such a basis that the owners of large properties can make far more out of them by legitimate development than they can possibly make purely by Wall Street speculation in them.

The movement of the Southern Steel Co., by which it has so largely increased its capitalization and bought a number of new properties and is now expanding its steel works, will set a good example to many others and will emphasize more forcibly than heretofore has been generally understood the great profit in the manufacture of the finer finished iron and steel products rather than depending simply upon the sale of pig iron, and will likewise emphasize the fact that Southern iron and coal properties must advance to a parity with similar properties in the North and West.

THE SOUTH PULSING WITH LIFE.

Increasing its manufacturing capital in five years from $967,701,865 to $1,597,513,217, or by $629,811,352, a rate of more than $120,000,000 a year, and the value of its factory products from $1,237,582,667 to $1,787,776,794, or by $550,187,127, a rate of $110,000,000 a year; raising, in addition to other farm products aggregating $1,200,000,000 in value, one crop, cotton with its seed representing $700,000,000, upon which depends the activity of 90,000,000 spindles or three-fourths of the total operated in the world; producing petroleum at the rate of 5,000,000 barrels a month; mining bituminous coal at the rate of 6,000,000 tons a month; making about 300,000 tons of pig-iron a month; adding annually 2500 miles to the railroad mileage of the country; contributing $694,000,000 worth, or about 40 per cent. of the $1,743,000,000 total export trade of the country, and sending $642,000,000 of that trade through its own ports; increasing the capital of its financial institutions at the rate of $50,000,000 a year, and the amount of its deposits in national, State, savings and private banks and loan and trust companies at the rate of many millions more a year; adding $3,000,000 a day to its aggregate wealth—these are a few of the most significant facts of the material progress now under way in the South.

But it is really only a beginning. There is an acreage in the South still to be brought under the plow capable of doubling that section's agricultural output, even with existing farming methods, while alluvial lands in the Mississippi valley, still to be reclaimed and aggregating about 30,000 square miles, will alone be able to bear without an ounce of fertilizer a cotton crop equal to that now produced by the whole. At least half of the merchantable timber of the country is in the South, which manufactures practically all the naval stores used here or shipped abroad. It is producing more than 2,000,000 tons of phosphate rock, with the exception of a few hundred tons the whole output of the country, and great stretches of the mineral are yet to be uncovered. In West Virginia, Tennessee, Kentucky, Arkansas, Louisiana, Texas and perhaps other States many more million barrels of petroleum are to be brought to the surface, and lead and zinc and marble and clays of various kinds are still to contribute an enormous tonnage to the mineral output of the country. The 40,000,000 acres of coal lands of the South now constitute a storehouse of at least 200,000,000,000 tons of fuel for light, heat and power, while the 500,000 horse-power for electrical transmission now under development from the water-powers of the South is hardly one-sixth of such available power. In Alabama alone there is at least 1,000,000,000 tons of iron ore, and in such States as Mississippi, Alabama, Georgia, Florida, the Carolinas, Tennessee, Kentucky, Maryland and the Virginias are vast deposits of limestones, clays and shales suitable for the manufacture of Portland cement, which is bound to become a greater and greater auxiliary to iron in building operations in this country, but of which the South is contributing hardly 1,500,000 barrels of the 35,000,000 manufactured in the country annually. Before railroad building in this country has reached its limits the South will probably have a mileage equal to the total 212,000 of the whole country today, instead of its present 60,000, and the trend of the export movement downhill toward the South Atlantic and Gulf ports, as the center of agricultural and manufacturing production becomes more and more clearly defined in the Mississippi valley, will be given a tremendous impetus by the opening up of wider markets for American exports through the completion of the Panama Canal. It is no wonder that the South is pulsing with a vigorous life.

A COWARDLY CAMPAIGN.

Says the Montgomery *Advertiser* in reviewing the recent primary in Alabama:

> This campaign will go down as the most cowardly ever known in the history of Alabama.

And if the *Advertiser* is at a loss for an illustration, it might find profit in considering the circumstances of a "child-labor" letter with an Atlanta (Ga.) date line aimed against the candidate for the governorship of Alabama, the publication of which letter in good faith but in lack of knowledge and judgment by the *Advertiser* brought forth a mass of affidavits with an exceedingly unpleasant suggestion about them.

"A SOUTHERN MAN FOR PRESIDENT."

Self-elimination of Col. William J. Bryan from the possibility of being nominated in 1908 for the presidency by any party save that, perhaps, of Gen. Samuel Gompers, has been made the pretext by two or three daily newspapers for trotting out the tattered and bewhiskered idea of a Southern man for President. Such papers either have no memory of their own or think that the voters of the country have no memory. They are utterly oblivious to the long-established and thoroughly-recognized fact that the inspiration of the idea comes invariably from an element that desires the development of strength in no really conservative party in American politics, and knows that there is no surer means of accomplishing its end than inducing the advocacy of a Southern man for President. This element knows that the principal arguments advanced by its dupes in support of the proposition will be that—

> The only President elected on the Democratic ticket in 40 years was a New Yorker.
>
> The South is the stronghold of Democracy.
>
> The Southern Democracy contains men of presidential caliber.
>
> The South is patriotic, and the nomination of a Southern man will efface sectional lines in politics.

These arguments open up at once the question of definitions. For instance, what is Democracy? The Democrat of 1856 would be as much an alien to the Democratic party of 1906 as would the Republican of 40 years ago be to the Republican party today. To a man up a tree, an unprejudiced observer of party manifestations, both of the so-called great parties, having swapped positions as to fundamental theories of government, seem to be rivaling each other in mobocracy—and in no particular more so than in the advocacy of Government control, with Colonel Bryan typing the one and Colonel Roosevelt the other—the one party cultivating the mob under the influence of distinctly self-seeking interests and the other cultivating the mob with no definite aim, apparently, than that of seeming to differ from the other party.

Then what is meant by presidential caliber? Is it ability to put through under the guise of patriotism some ante-election bargain with individuals who would use the power of the government to advance their personal interest, skill in persuading the people into a belief that opportunist whims are the veriest statesmanship or power to administer the office of President with due regard to constitutional and legal limitations and in the interest of the country for all times?

What are sectional lines in politics? With Southern Congressmen wildly enthusiastic, in adherence to a theory utterly subversive of the material interest of the South, for the program of free raw materials for manufacturing, set forth for the benefit of the material interest of other sections; with Southern Senators even more pronounced than Northern Senators in support of a railroad-rate regulation scheme advanced by a Western representative, in what direction do sectional lines in politics run?

What is patriotism? How is it manifested? Is it hurrah business, not without thought of a liberal salary or other perquisites, over an unjustifiable war with a puny antagonist, but a war full of evil possibilities for generations yet unborn? Is it unquestioning support of wrong methods in carrying out right policies with the thought only upon immediate benefits? Is it acceptance, as a representative of this section or that, of a position upon some board or commission with nothing to do beside drawing one's salary and posing as a "representative?" Is it howling for anything called patriotic without regard for fundamental principles?

When these questions have been answered and clear definitions have been agreed to one may turn to other phases of the arguments for a Southern man for President. The contention that the Democratic party has elected but one man President in 40 years, and he a New Yorker, loses whatever force it might have when it is recalled that the Democratic party has elected but five men President since 1836, a period of 70 years, and only one of them a Southerner, and that, moreover, no native of New England, which used to share with the South the candidates for the presidency on the Democratic or opposition tickets, has been elected President since 1852.

Yet New England is not found putting forth a claim to a nomination for the presidency two or three years before a presidential election, and in the years of election is content to let the nomination go to the section where it will mean the most votes, provided the nominee may be depended upon to do all in his power to favor policies conducive to the advancement of New England's material interests, and to deserve such a favoring by rolling up as big a vote as possible for the candidate.

There is practical politics in that which the South may well take to heart if it really hopes to enjoy the place and power in American affairs which in many respects it should enjoy to the good of the country. A primary step in that direction involves banishment to the lumber-room of tomfoolery of the notion that the South is the stronghold of Democracy in the country, if by Democracy in the country one means members of the Democratic party. Of the 5,000,000 votes cast at the last election for the Democratic candidate for the presidency, about 1,350,000, or less than 30 per cent., were cast in the 14 Southern States. When the proportion shall be reversed, when the South shall cast anything like 70 per cent. of the votes for a presidential candidate, it will be time enough to talk about the South's insisting upon furnishing the candidate.

As it is, the South is just as patriotic as any part of the country, if not more so. It is as fully capable today of yielding its own immediate welfare for the good of the whole country as it was in 1816, when it made possible the passage of a protective tariff act for the special benefit of New England. It has men of the presidential caliber that would lead the country along safe and progressive lines. Some of these men are in public life, though the mouthings of the demagogues and the friends of demagogues, most of whom are usually brought to the front upon every revival of the talk of a Southern man for President, might lead the casual observer and the uninformed superficial thinker to the erroneous belief that the demagogue was dominant in Southern public life.

The real statesmen, the real men of affairs of the South, however, are practical politicians enough to know that the South can only be damaged by any insistence upon leadership on the national ticket of any party, and that such insistence can, under existing circumstances, only raise the issue of sectionalism in politics, which invariably reacts disastrously upon the substantial interests of the South and the whole country,

and they know that when Southern leaders, so-called, can be depended upon to give hearty support to a Democrat and the presidency instead of hampering him by their personal vanities, and thus driving Northern and Western Democrats into disgust and despair, and when the Southern delegates to a national nominating convention may stand unitedly for the same party policy for at least eight years, it will be time enough to give serious consideration to the thought of a Southern man for President.

SAND-LIME BRICK.

Necessities of building operations and the tendency toward variation in materials have given an impetus to the manufacture of sand-lime bricks in this country so great that the United States Geological Survey, which used to include in its reports the sand-lime brick production under the head of clay products, will give them a separate section in its report on Mineral Resources of the United States for 1905. The wonderful growth of the industry is shown by the increase between 1904 and 1905 in the number of plants from 57 to 84, in the output from 65,137,000 to 135,866,000 bricks and in the value of the output from $463,128 to $972,064. In 1905 there were sand-lime brick plants in Alabama, Arizona, Arkansas, California, Colorado, Delaware, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Washington and Wisconsin. These plants turned out 50,646,000 common bricks, 14,471,000 front bricks and 20,000 fancy bricks in 1904, and 119,131,000 common bricks, 16,562,000 front bricks and 198,000 fancy bricks in 1905.

NEW COTTON MOVEMENT.

In his report for September 7 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the first week of the present season was 120,799 bales, a decrease under the same period last year of 100,882 bales. The exports were 52,590 bales, a decrease of 27,831 bales, and the takings were by Northern spinners 13,806 bales, a decrease of 9096 bales, and by Southern spinners 44,112 bales, an increase of 1817 bales.

Big Contract for Southern Plant.

An important contract was received last week by the Newport News Shipbuilding & Dry-Dock Co. of Newport News, Va. It calls for the construction of three large steel car floats to cost $60,000 each. Each float will be built of steel throughout, 255 feet long, 33 feet 6 inches broad and 10 feet deep. Each vessel will have two lines of tracks extending the entire length of the deck, and be capable of carrying 14 cars. This contract comes from the Delaware, Lackawanna & Western Railway Co., and the floats will be used for transporting cars from the company's Hoboken terminals to New York city.

Camden, S. C., Wants City Engineer.

An opportunity for a capable civil engineer to obtain the appointment of city engineer of Camden, S. C., is presented. The city will receive applications up to October 1, and requests applicants to state salary expected and furnish references as to ability and experience, the latter to be indicated by actual work accomplished, with particulars as to when and where. The duties of the position are to begin as soon as an agreement can be reached and extend over one year. Address communications to J. J. Goodale, City Clerk and Treasurer, Camden, S. C.

NEW ENGLAND MILL MEN.

National Association of Cotton Manufacturers at Lake Champlain.

At the semi-annual meeting at the Hotel Champlain, New York, this week of the National Association of Cotton Manufacturers the program included an address of welcome by Attorney-General Julius M. Mayer of New York, an address by President James R. MacColl of Providence, R. I., and papers by Mr. Christopher P. Brooks of New Bedford, Mass., on recent progress in textile education in the United States; by Harvie Jordan, president of the Southern Cotton Association, on the handling and marketing of cotton by the growers; by Mr. Arthur A. Haserick of Boston, Mass., on Egyptian cotton; by Mr. C. B. Burleigh of Boston, Mass., on the Curtis vertical turbine; by John A. Fernley of New Bedford, Mass., on practical experience in electrical driving; by Mr. Edgar F. Hathaway of Boston, Mass., on drawing-in of warps by machinery; by Mr. Talcott Williams of Philadelphia, Pa., on child labor; by Mr. Edwin H. Marble of Worcester, Mass., on singeing, and by Mr. Hugh Nelson of New York city on steam boiler insurance.

President MacColl in his address reviewed the proceedings of the conference of cotton growers and manufacturers held at Washington last May and the proceedings of the June congress at Bremen of the International Federation of Cotton Spinners and Manufacturers' Associations, emphasized the necessity of consideration by every manufacturer of the whole question of the future market and its influence upon the cotton industry, and said:

"The change of our name to the National Association of Cotton Manufacturers is justified by the fact that 25 per cent. of our membership is outside of New England, and the belief that this proportion will probably be materially increased in the future. As a national association it is fitting that we should hold our autumn meetings as often as possible outside of New England, and thus keep in closer touch with the members who reside in other States. It behooves us to take an active and aggressive interest in everything that tends to develop cotton manufacturing in our country. We desire to see the Southern States maintain their supremacy in supplying cotton for the world's use, and we should endeavor to cooperate with the growers in a loyal and friendly spirit in their efforts to obtain a fair and profitable return for their product, and to improve the methods of handling and marketing the raw material. Our aim should be to work harmoniously with other manufacturers' organizations, not encroaching on any fields of effort that are covered by them, but ready to do the things that are our special province or are being neglected.

"The equalization of conditions of labor in the Northern and Southern States continues. South Carolina manufacturers have voluntarily adopted a 64-hour schedule, to be followed in two years by a further reduction of two hours and in four years by a 60-hour schedule. Other States will undoubtedly follow suit. The minimum age of child labor is also being lowered. The day seems now much nearer when practical uniformity as to hours, wages and age limit will prevail throughout the country, and this not solely by legislation, but to a large degree by voluntary action.

"The wave of tariff revision and reciprocity is subsiding. Under the present law there is marvelous prosperity, in which all classes of the people are sharing. Common sense says 'let well enough alone.' Reciprocity is found upon investigation to mean the sacrifice of one section of the country or one industry that another section or industry may grow more rapidly. In nine years under the present tariff the national exports have increased from $1,032,000,000 to $1,717,000,000, which places the United States in this respect in the first rank among the nations of the world. With labor and capital fully employed and unable to meet the demand it would surely be folly to reduce duties and buy more foreign goods, in order to increase our exports by an equal amount. The chances are we should accomplish the former, but not the latter.

"There are no very important advances in machinery to chronicle at this time. It is little by little that progress is made. Many minds are at work in this country and abroad, and continually new devices are appearing to improve quality or cheapen cost of labor. At our last meeting a paper was read on reinforced concrete construction. The cost of building is greatly increased in recent years, and it would be of advantage to the trade if any new and cheaper method could be adopted. As the principles of reinforced concrete construction become better understood and its cost reduced the probability is that it will be extensively applied to cotton factories.

"We ought to have a paper at our next meeting on recent mill construction in England, where approximately 100 new mills have lately been erected.

"Electric driving of machinery continues to make rapid progress. Two papers on this subject are on our present program. The turbine engine is now attracting much attention, and an important paper will be presented on that topic.

"As a result of a recent European trip a few observations of comparative conditions here and abroad may be of interest. My opinion is that the best practice in cotton mills in England and on the Continent and in the United States is practically on a par of efficiency as regards machinery and management. There are few secrets nowadays in cotton manufacturing. New devices and methods, wherever originated, are quickly known on both side of the ocean, and if meritorious they are as quickly adopted by the most progressive mill men.

"In all countries there are many illustrations of inefficiency and slipshod work, and more than every before what counts in results is management, both commercial and technical.

"The different systems of buying cotton are noteworthy. In Bremen there is no future contract market as in New York or Liverpool, nor is there any accumulation of spot cotton, but the system prevails of buying for future delivery cotton of fixed grade and staple. The exchange has an organized system of arbitrating cotton on arrival if so requested by the buyer. Last year 1,933,000 bales were imported and 1,778,000, or about 92 per cent., were so arbitrated. Not only is the market difference allowed on inferior shipments, but an additional penalty is imposed. It is, therefore, so expensive for a merchant to deliver inferior cotton that the shipments are generally up to the standard ordered. The Arkwright Club has recently issued revised rules for buying cotton. They are excellent, but we need in addition a definite statement of the methods of settlement in the event of shipments proving inferior. The Bremen penalty plan is a good one.

"In Liverpool there is a future contract market similar to New York, but in addition a large stock of spot cotton is carried, amounting frequently to 1,000,000 bales. The most general method of buying cotton by English spinners is to purchase spot cotton as needed at points on the contract market price. Distant requirements can be hedged by buying futures, or actual cotton at points on subject to call.

"There is danger of New York becoming purely a hedging and speculative market. Compared with Liverpool or Bremen, its transactions in actual cotton are unimportant.

"Negotiations are now in progress in England to arrange an automatic adjustment of wages based either on the return to capital or on the margin between cost and selling price. If this can be brought about it is hoped to avoid the conflicts which have been so expensive to both capital and labor in the past.

"Both abroad and here there is marked development in welfare work, indicative of better relations between employers and employes. At our Atlantic City meeting special attention was given to this subject. Every cotton manufacturer should do some work of this kind, but the form which it assumes must be dependent on the conditions and requirements existing at his mills."

Mr. Harvie Jordan also dwelt upon the fact that there were many matters of mutual interest to both the growers and the spinners of American cotton, such as proper ginning and baling, covering or tare, country damage, damp in cotton, warehousage, marketing, speculation and stable prices, and said:

"Pursuant to the organization of the Southern Cotton Association there had been no direct concert of action relative to the building and equipment of adequate cotton warehouses for the purposes of storage and marketing the cotton crop by the growers. During the past two years, however, under the wide agitation and discussion of this important matter and its imperative need in the future handling of the South's staple crop, great progress has been made. Several hundred modern up-to-date warehouses have been constructed at different interior market points in the cotton States during the past 18 months, and many hundred more are now in the course of construction or in contemplation of building. These local warehouses are being erected by local capital subscribed by farmers, bankers, merchants and others, with a varying capacity of from 2000 to 50,000 bales, according to the requirements of the various localities. As a general rule they are built according to the plans and specifications of the fire insurance companies, in order to give first-class storage and reduce the present high rates of insurance to a minimum of expense. Our association has conducted an active campaign of education along this line and assisted in this needed reform in the cotton industry in every way possible, with splendid results up to the present time, and continued bright prospects ahead. With the establishment of modern warehouse facilities throughout the interior of the cotton belt practically all of the present difficulties which confront the growers in properly and intelligently marketing the crop to meet the demands of the spinners and minimize the growing and disastrous evils of speculation in cotton futures, to the detriment of the legitimate cotton trade, will be overcome. Aside from this, the heavy annual losses to both the growers and spinners from country damage and damp in cotton will be obliterated. With cotton warehouses built at every interior market point the growers will soon begin their patronage and the staple will be promptly delivered from the gin to these first-class storage facilities and there held in perfectly dry and good condition until sold and delivered to the transportation companies for shipment to the factory.

"Furthermore, these warehouses will be placed in charge of competent, expert cotton men, who will grade the cotton and properly weigh it. A negotiable receipt will be issued with the grades and weights guaranteed and underwritten in such a way as to make these receipts negotiable in any financial center. Such a cotton warehouse receipt, where the staple is properly stored and insured, will present a high type of gilt-edge security to our banks and will at once command very cheap money. This system will enable the growers to borrow money as needed on their cotton in storage to meet maturing obligations in the fall and winter, while it will further induce and enable the growers to sell the crop slowly and break up the present disastrous system of rushing the staple on the market during a short period of time when it is not needed for consumption.

"This system will do more. It will ultimately enable the growers to get into cleaner touch and into more direct business relations with the spinners. With their cotton stored in warehouses, the staple graded and weighed, backed by a strong financial system and the introduction of first-class business methods in the sale of the crop, they can begin to organize a system for taking orders direct from the spinners and be in position to execute these orders promptly and efficiently. This would be an ideal consummation of the future cotton trade of this country, and I feel assured that from expressions already made by many of our leading spinners that they would enter heartily into an arrangement of that kind.

"We ask your co-operation along these lines, believing that such co-operation will hasten the day of the emancipation of both the spinners and the growers from the dominating influences of both the middlemen who buy our cotton for you and that extreme element of speculation which has in the past and is at the present time so hazardous to the legitimate interests of the cotton trade.

"With a better understanding between the growers and spinners, with improved facilities for handling and marketing the cotton crop in the future the foundation can be permanently laid for the fixing and maintenance for a fair stable price for the staple which will be mutually profitable to both interests. I wish it distinctly understood that the great association which I have the honor to officially represent as its official head has no desire to undertake to force the payment of such a high price for cotton as that it would curtail consumption or prevent the spinners and manufacturers from earning a fair and equitable dividend upon the investments which they have made in the great and useful industry they pursue. Our people are being taught to regard the spinners of the world as their best friends instead of their enemies, as they were taught in years gone by. We realize that unless the spinners prosper our industry must suffer, and we ask the same degree of consideration at your hands. If we knew each year at what price you could profitably spin our cotton we could more intelligently agree upon a price that would be more satisfactory and upon which our present differences could be more quickly harmonized. The South at the present time cannot produce abundant supplies of raw cotton at a living profit for less than 10 cents, and if prices for any reason prevail below that figure production will be necessarily curtailed and the spinning industry made to suffer from the reaction. The cotton-growers of the South are not compelled to grow cotton at a loss for their future existence, but the cotton mills of the world must be kept busy with their spindles and looms constantly employed in order to make their investments profitable. I am thus plain in my statements along this line because there is a constant and ever-increasing effort to depress the price of our cotton down to or below the cost of production. With your interests so vitally affected in the future, and being, as you must be, so closely related to and with the growers in the cotton industry, we ask you in all candor and in all earnestness to join with us to maintain the price of the staple at fair and profitable figures to the growers in order that your industry may not be jeopardized and that the growers may have every inducement to push forward to wider and greater efforts in production so as to safely meet the ever-expanding and increasing demand for American cotton.

"We wish the highest measure of prosperity not only to you and the capital invested in the cotton mills of this country, but also to that vast army of wage-earners who make the success of your mills possible. We ask for the millions of cotton-growers in the South the same measure of prosperity in the life-work in which they are engaged. We realize that we possess a distinct monopoly in the world's production of cotton, and have but few fears that the rights of this monopoly will ever be infringed upon from any other quarter of the globe. We would rejoice if the American manufacturers occupied the same strong position as that of the growers. The South is now financially able to protect the cotton crop from any future imposition of very low prices, and the farmers will successfully resist any effort made to reduce prices below the cost of production, or even below a price that will at least net to them a profit.

"With but one thought single to the future glory of our American Union, actuated by that sentiment which would tend to build up and make prosperous all sections of our country alike, let us join hands for the prompt and effective solution of those problems which so vitally affect this great industry of mutual concern and enjoy those benefits that should and must accrue to every interest legitimately concerned in the great staple crop of the world."

Mr. Christopher P. Brooks dwelt especially upon textile education by correspondence as the most striking development in textile education in this country, but said:

"Seven years ago we had but two textile schools, the pioneer American institution of the present textile educational system, namely, the Philadelphia Textile School, which is a part of the School of Industrial Art of the Philadelphia Museum of Philadelphia, Pa., and the then newly established Lowell Textile School of Lowell, Mass. These represented residential textile education, while the American Correspondence School of Textiles, now the Textile Department of the International Correspondence Schools, was the sole representative of correspondence textile education.

"In the intervening period the Philadelphia Textile School has increased its curriculum and the Lowell School has moved into a new building and extended its scope by the addition of instruction on several subjects of an allied nature. The Commonwealth of Massachusetts, jointly with the city of New Bedford, has established the New Bedford Textile School, which was opened in October, 1899, and has since been twice enlarged. In March, 1904, the Bradford-Durfee Textile School of Fall River, Mass., was opened under the auspices of the Commonwealth and the city in which it is located. Nor have other communities been unmindful in providing facilities for the textile education of their sons, since the Georgia School of Technology has added a textile engineering department which is well and favorably known in the South for its completeness and efficiency. In South Carolina textile instruction is now included in the work of the Clemson Agricultural College. The North Carolina College of Agriculture and Mechanic Arts has added a textile department to its educational work at West Raleigh, N. C. The Mississippi Agricultural and Mechanical College includes a well-equipped textile department, and in Texas the possibility of a textile education has been provided for by the addition of a department devoted to textile subjects at the already extensive Agricultural and Mechanical College at College Station, Texas.

"On a smaller scale facilities are provided in some cities for teaching textile subjects on which instruction can be given without an extensive equipment. For example, the Swain Free School of New Bedford, Mass., gives instruction in textile ornament; the Rhode Island School of Design, Providence, R. I., includes textile designing as one of the studies, and at the Y. M. C. A. in Pawtucket, R. I., and also at Adams, Mass., evening students are received in classes of instruction on textile calculations. It will thus be seen that each of the larger sections of the United States where textile manufacturing is conducted has one or more representative residential textile schools, but they only meet the popular demand in their own immediate vicinity, since they are too remote from very many extensive manufacturing cities and towns for the work people to take advantage of the evening classes. In the Southern schools evening classes are not conducted. In the Philadelphia school the evening classes are an important feature of the school work, and in the New England schools the most important."

Mr. Arthur A. Haserick said that Egyptian cotton would not have found in the United States such a ready market as it has had the domestic growers been less lax in their methods, and he went into some detail as to the methods of handling the staple which he epitomized in one word, thoroughness. Regarding the effect upon the culture of the construction of the great dam at Assouan, he said:

"It will be remembered that this great engineering work was completed in the year 1902, and the crop of the following year was the first to be benefited. It was constructed chiefly with the view to protecting the land under cultivation, and while it was not expected that there would be any material increase in Lower Egypt, it was recognized that the land of Upper Egypt would be chiefly benefited. This, of course, refers to a narrow strip about 600 miles long and a few miles wide, but the soil is rich, and with a regular supply of water crops could be depended on. Beyond this strip, and this applies to all land which cannot be reached by the Nile water, there is nothing but a sandy desert impossible for cultivation."

PROGRESS OF REINFORCED CONCRETE.

[Written for the Manufacturers' Record.]

In connection with a study of cement production as given elsewhere in this issue an interesting story of the progress of reinforced concrete is told by Mr. Ross F. Tucker, member of the American Society of Civil Engineers, in the last issue of the *Cement Age*. Recalling the fact that "in 1885, when the production of Portland cement was only 150,000 barrels, Mr. E. L. Ransome, then of San Francisco, invented twisted bars and demonstrated the principle underlying all reinforced structures whereby it is possible to incorporate steel bars in a mass of concrete in such a manner as to enable the concrete to withstand transverse loads." He adds: "And though the appliances for making and handling concrete were of a primitive kind, we can appreciate the difficulties with which he had to contend and can bestow greater credit and honor upon him for the courage and splendid mechanical and engineering ability which he displayed in undertaking the construction of steel-concrete buildings of such magnitude in a country subject to earthquakes."

Among the structures mentioned as having been built under this system was the Museum Building of the Stanford University, and of these buildings he says: "During the recent great earthquake in California all of the above structures, comparatively crude as they were in design, came through the ordeal practically unscathed, where buildings of brick and stone in their immediate vicinity were entirely wrecked." * * *

"These methods enabled the architects to use concrete in a conservative manner and to become acquainted with its structural properties without abandoning the steel frame which constituted the main structural basis of their design. In this period, from 1890 to 1895, the production of Portland cement progressed from 300,000 barrels to 900,000 barrels, and the lessons learned from the use of concrete in this respect led to its adoption in a large number of projects originally planned for other material.

"From this time on the use of concrete grew very fast. In 1897 and 1898 there came a great shortage in structural steel. Deliveries were so uncertain and remote that engineers the country over were at their wits' end to find ways and means for fulfilling their designs, and they turned at once to reinforced concrete to help them out of their dilemma. European systems of reinforced concrete were introduced and engineers generally began to study the subject from a scientific standpoint, with the result that by 1900 the steel structure was recognized generally as a structural possibility and its adoption was considered for every conceivable kind of problem. At this period the production of Portland cement in this country had reached 8,400,000 barrels per annum. In the succeeding five years, however, the popularity of concrete and the confidence of the building public in its properties were demonstrated in a most astonishing manner, for the production of Portland cement sprang from 8,400,000 barrels in 1900 to 36,000,000 barrels in 1905.

"Anyone considering the progress of the industry, as noted, can hardly say that the reinforced structure is a fad, although it is admitted that concrete has been applied to many purposes for which it is not at all suitable. It is a fact now beyond dispute that the steel-concrete structure has passed the experimental stage and has been adopted throughout the land as a building element of the greatest value. It is true, however, that much has yet to be done in the education of the architect and the engineer and in the use of concrete in a logical manner and for its real value. Owing to the comparative youth of this type of building, architects and engineers generally have not as yet given any great attention to the development of design essentially suitable to reinforced concrete. It is the general practice to design in brick, stone and steel and then to call upon a reinforced-concrete engineer to reproduce a structure in reinforced concrete. This is an imperfect and unscientific method, and unfair to the development to the true value of the concrefe structure. The average architect and engineer is as yet too unfamiliar with the characteristics of con-

crete to design a structure solely from that point of view. He thinks in terms of steel, designs in brick and steel and then attempts to adopt concrete to his structure. The architect who could design intelligently for reinforced concrete must think in terms of reinforced concrete, but up to the present time the condition is similar to requiring a carpenter to think in the metric system when he has been all his life accustomed to figure in feet and inches.

"Many of the monuments of Rome, that have endured for more than 2000 years, were built of a concrete far inferior to that which we use today. So inferior, in fact, and so different in method and material as to be hardly entitled to the name of concrete, as we know it, at all. Still these monuments, stripped of their facings of mosaic, tile and stone by the ravages of time and conquest, still endure. What, then, may we expect of the great structures which we are building under the eye of modern science? It is certain that the concrete of our day will endure far beyond the life of any natural stone, and it is not too much to hope and predict that when our architects have become acquainted with the true characteristics of this wonderful material they will create a new architecture more orignal and more truly American than any we have attained thus far. The future is replete with possibilities. We have learned thoroughly how to make concrete strong; let us learn now how to make concrete beautitul."

Discussing this subject, the *Scientific American*, referring to the great increase in concrete work, says:

"Extensive as is the use of concrete, whether in the plain or in the armored or reinforced condition, we are today witnessing but the beginning of what may be termed the concrete age. This ever-broadening application of concrete is to be welcomed, provided care is taken to guard against careless construction or the introduction of cheap and fraudulent methods of work. If the day ever comes when concrete construction is carried on in the shoddy manner which characterizes much brick and stone construction of the present day, we shall be leaving a heritage of trouble and disaster to posterity, the measure of which it would be hard to foretell."

And as illustrating another phase of the industry the development of which is creating many new lines of activity, the *Scientific American* points out the great increase in the demand for broken stone or crushed rock, and on this point adds:

"Evidence of the rapid increase in the use of concrete in engineering and architectural work is to be found in the great demand for and increasing value of what used to be known as 'broken stone' and is now known as 'crushed rock.' There was a time, and not so very long ago, when the hand hammer or the portable crushing machine of moderate capacity were equal to supplying the demand; but of late years the call for this material has been so extensive as to warrant the construction of large plants equipped with machinery of special design and large power, capable of turning out several hundred tons of crushed rock per hour from each machine; in fact, it is likely that the production of crushed rock will become a specialized industry, with plants located conveniently to suitable quarries, and within reach of rail or water transportation."

New Grain Elevator Facilities at New Orleans.

Included in the extensive improvements being provided at New Orleans for handling grain is the 500,000-bushel grain elevator which the Illinois Central and the Southern railways are constructing. Construction began three months ago, and the plant will be complete soon at a cost of about $500,000. The storage capacity will be 500,000 bushels, and the elevator can receive 240 cars every day and ship the same amount, equivalent to handling 480 cars of grain every 24 hours. Surrounding the elevator will be trackage and yards to accommodate 5000 freight cars. There will be built several large warehouses for grain, besides hay and feed storehouses, on the main driveway. The elevator is a heavy timber and steel superstructure on a solid concrete foundation built on solid rock. The numerous bins have steel floors, and a modern sprinkling system will furnish protection from fire. A compressed-air equipment will draw the refuse into pipes on each floor for transmission to the furnaces. The water system includes a 10-inch main from the companies' independent pumping station on the river for supplying the water for fire protection and the steam power plant. Capacity will be 1,000,000 gallons daily. It is stated that this elevator will be the largest in the South with the exception of the export elevators at New Orleans, Galveston and Norfolk. Mr. Charles Rouzer, manager of the elevators, has offices in the First National Bank Building. Mr. Charles Harrison will be superintendent of the plant.

CONCRETE GRAIN BINS.

Extensive Improvements Planned for Pennsylvania Terminal at Baltimore.

Regarding the grain storage bins to be erected in Baltimore by the Pennsylvania Railroad Co., recently referred to in the MANUFACTURERS' RECORD, Mr. H. W. Kapp, general agent and superintendent of the company in Baltimore, informs the MANUFACTURERS' RECORD that these bins will consist of 32 circular bins, each 24 feet in diameter and 70 feet deep and giving a total capacity of 1,000,000 bushels. They are to be operated in connection with grain elevator No. 3 at Canton, and to prevent any possible damage to the grain by fire they are to be placed at a distance of 500 feet from the elevator and the machinery which operates them. Galleries will extend from the storage bins to the elevator, and will be equipped with conveyor belts for transferring the grain.

These bins will all be constructed of reinforced concrete throughout, and will be built on a pile foundation. The piles will be leveled off 12 inches below low-water mark and the concrete work will be started at that point, this method being pursued to insure absolute protection to the contents from dampness. The bins, which are to be of a conical shape, will have an opening at the top to receive grain from the elevator and one at the bottom for the purpose of discharging the grain into the elevator. In planning these structures they have been so laid out that additional bins can be constructed at any time.

The adoption of reinforced concrete as the method of construction for this important work marks another advance in the great strides in the use of this material where the conditions to be met are not easily overcome and where the results to be attained are more than ordinary. In storing grain it is absolutely essential for the preservation of the grain that it should be protected from dampness and fire, and on this account it is safe to say that the engineers of the company investigated thoroughly the merits of reinforced concrete and its ability to protect the grain before recommending its adoption.

All of this work will be done under the supervision of the engineering department of the Pennsylvania Railroad Co., of which A. C. Shand is chief engineer, and which has its offices in Broad Street Station, Philadelphia.

AMERICAN COTTON CROP IN 1905-1906.

By COL. HENRY G. HESTER.*

The cotton crop of the United States for the year ending with the close of August amounts to 11,345,988 bales, showing a decrease of 2,219,897 under that of 1904-1905, an increase of 1,334,614 over that of 1903-1904, and an increase of 618,429 over that of 1902-1903. Of the decrease under last year 25.14 per cent. was in Texas and Indian Territory, 64.46 per cent. in other Gulf States and 10.40 per cent. in the Atlantic States.

Compared with last year, in round figures, Texas, including Indian Territory, has fallen off 558,000 bales; the group known as Other Gulf States, consisting of Louisiana, Arkansas, Mississippi, Tennessee, Missouri, Oklahoma, Utah and Kansas, has decreased 1,431,000 bales, and the group of Atlantic States (Alabama, Georgia, Florida, North Carolina, South Carolina, Kentucky and Virginia) has lost 231,000.

While the commercial crop as a whole has proven to be the largest ever marketed, except that of last year, the advantage has been entirely with the Atlantic States, which produced what would be considered a bumper crop were not the phenomenal yield of last season considered. In the Gulf States conditions amounted practically to disaster, Louisiana producing less than half a crop and Mississippi and Arkansas about two-thirds.

The average gross weight of the bales compared with last year has decreased 4.67 pounds, but is still the largest recorded except that of last year and the average of the season of 1898-99 (when the crop was 11,274,840 bales), the third largest crop marketed.

In grade the crop has been a good one, the average of the reports from the leading markets showing as a whole a slight variation compared with last season.

The year's average of price for the Cotton Belt has been 11.07 cents per pound, the highest for middling having been 12⅛ cents on December 7, 1905, and the lowest 9 5-16 on August 29, 1906. In 1904-1905 the highest price of middling was 11 3-16 and the lowest 6½.

The average commercial value per bale of the crop is $56.56, against $46.31 last year, $61.68 the year before and $44.52 in 1902-1903.

The money value of the past crop is the largest ever received for any commercial crop recorded, and notwithstanding that it was 2,219,897 bales less than that of last year, it brought $12,525,075 more. The lowest average price per bale in any month during the past season was $52.53 in October, 1905, and $50.94 in August, 1906, while during the month of December, 1905, the average per bale ran as high as $61.20. Last year (1904-1905) the January average was $36.34 per bale, and there were five months, from December to April, during which cotton sold at less than $40.

The feature of the past season has been a steady and strong demand for the use of manufacturers, and while the outturn of the crop in amount was a surprise to the trade, it proved to be considerably short of requirements.

Value of Commercial Crop.

The total value of the crop compared with the previous five years is as follows:

	Bales.	Values.
1905-1906	11,345,988	$641,720,435
1904-1905	13,565,885	628,195,359
1903-1904	10,011,374	617,501,548
1902-1903	10,727,559	480,770,282
1901-1902	10,680,680	438,014,689
1900-1901	10,383,122	494,567,547

These values are based on actual transactions from week to week and month to month as the crop was marketed and carefully compared with computations made by the secretaries and superintendents of exchanges at the leading Southern trade centers.

Since my last annual report the trade has been favored with a statement by the Washington Census Bureau, which went minutely into the figures of mill stocks North and South at the close of the seasons of 1903-1904 and 1904-1905.

While the mill stocks appear excessive, I have adopted them as perhaps the nearest to facts that may be obtained. My totals of Southern consumption, however, have not been altered, because they were based upon actual returns from the mills, my files for 1903-1904 containing (in addition to numerous mattress and batting factories and other minor concerns using raw cotton) direct reports from 762 cotton mlils (active, idle and building) out of a total at the close of that year of 777. Of the 15 mills not reporting direct, most of which were small factories, my information was sufficiently accurate to cover the purposes of an actual census. The same may be said of the data embraced in report for this year.

In compiling figures of "actual growth" for 1904-1905 I contended that all of the year's growth had not been ginned, or if ginned full returns thereof had not been made. The Census Bureau's subsequent report of "supply and distribution" of last year's crop convinces me more than ever that my impression was correct, and that instead of allowing 429,000 bales of last year's growth as left over unmarketed at the close, the total should have been at least 530,000. The Bureau adhered to 13,693,279 bales returned by the ginners as the production of 1904 (commercial year 1904-1905), while at the same time it gave the new cotton of the growth of 1905 (commercial year 1905-1906) ginned prior to September 1, 1905, as 476,655, an excess over the very large ginnings for the same period in 1904 of 101,834. This excess, if not more, it is reasonably certain was old and not new cotton. This does not necessarily impute bad faith by the ginners, as it is doubtful whether many of them could distinguish between old and new cotton in the seed.

I have for this reason revised my approximation of old cotton left over last year by addition of 100,000 bales. This will make comparisons of amounts left over this and last years as follows:

	This year.	Last year.
Southern mill stocks	176	236
Counted and uncounted interior towns and plantations	201	294
Total carried over in interior of South at close of season	377	530

According to these figures, the actual growth of the monster crop of 1904-1905 closely approximated 13,900,000 bales, instead of 13,800,000, as I made it.

For the season just closing the actual growth was approximately as follows (in thousands of bales):

*From his annual review as secretary of the New Orleans Cotton Exchange.

Commercial crop of 1905-1906		11,346
Less old cotton from crop of 1904-1905		530
		10,816
Plus growth this year marketed in July and August, 1905	75	
Grown not marketed in 1905-1906	377	
		452
		11,268
Deduct July-August receipts of new cotton of crop of 1906-1907		107
Actual growth 1905-1906		11,161

It is difficult to reconcile the ginners' reports for this year with the commercial crop, which represents the actual movement. According to the Census Bureau the—

Amount ginned to the close of March, 1906, was, in round figures		11,726,000
Of this there were ginned prior to September 1, 1905, a total of 477,000 bales, but marketed during July and August, 1905, only		75,000
		10,651,000
Add this to the old cotton left over in the South at the close of 1905 in the shape of Southern mill stocks and stocks at interior towns and on plantations		530,000
Would make the available supply		11,181,000
The commercial crop was	11,345,000	
Less new cotton of crop 1906-1907 marketed in July and August	107,000	
	11,238,000	
Left over August 31, 1906, in Southern mills, on plantations and interior towns	377,000	
Or, say in all		11,615,000
An excess over the census supply to be accounted for of		434,000

Apparently this 434,000 bales was ginned and not reported, or was ginned between the close of March (the time of the last Census return) and August 31 from the growth of 1905-1906.

American Mills.

American mills North and South have had a season of unparalleled activity. In no past year have they consumed as much cotton, and had it not been for the lack of labor, especially in the South, they would have materially exceeded the handsome totals given below. It now looks as if the transfer of the seat of cotton manufacturing to this side of the Atlantic had commenced in earnest, and that the turn of the tide which has been anticipated for some years past has at last set in. Given the needed facilities, it is but natural that the country which produces the raw material in vast quantities should work it into the finished article; provided, of course, that its people are not what the South was for many generations, purely agricultural. Six years ago (in 1900) the total takings of American mills North and South were 3,665,412 bales; this year they consumed 4,835,225, and the total would have reached, if not exceeded, 5,000,000 bales had the necessary mill help been obtainable. It may be stated as a fixed fact that the factories of the United States need at the inside 5,000,000 bales of raw cotton annually. How much more in the near future it would be difficult to forecast. Compared with last year, the mills North increased their consumption of American growth 324,000 and those of the South 211,000, or say together 535,000 bales, while the mills abroad used 186,000 American bales less. All of the commercial crop of 11,346,000 bales was used up and the reserves were trenched upon to the extent of 840,000, and this was not low-priced cotton, for, as stated elsewhere, there was not a month during the season, if we except August, which was unduly depressed by the shadow of the new crop, that values averaged below $52.53 per bale for middling, while in November and December, months in which more than one-third of the year's growth was placed upon the market, the averages per bale were $58.09 and $61.20, respectively. Briefly, there was a strong, healthy demand, evidencing that the mills were eager and willing buyers of 11 and 12-cent cotton with trade conditions to justify. In the South the labor question was not so much in decrease in the number of hands as in the increase in the number of mills and spindles.

The same story must be gone over in relation to the march of the spindle. Mills that were idle last year and the year before resumed work and others enlarged their capacity. The active list shows 32 more mills, while the idle concerns have been reduced from 38 at this time last season to 20. The roster shows in the going concerns 625,241 more spindles, and it embraces 33 new and uncompleted mills with 578,420 spindles, many of which are due to come into play during the new season. In addition I have reports of many new mills projected, a number of which expect to commence building within the next few months.

The consumption of American cotton by Northern mills may be put at 2,461,000, against 2,137,000 last year. They took, in round figures, 2,349,000, but of this they have carried over in stock about 300,000 bales. It will be observed that I have altered my Northern mill stocks to agree with those put forth by the Washington Census Bureau, though I am impressed with the belief that some of the returns under which the total of 412,000 (or, to be exact, 411,519) stock at the close of last year was fixed upon were excessive. The comparatives for the past two years with revised stock figures for the close of last year and the year before were as follows (in thousands of bales):

	This year.	Last year.
Northern mill stocks beginning year (census)	412	267
Takings	2,349	2,282
Supply	2,761	2,549
Year's consumption	2,461	2,137
Northern mill stocks close season	300	412

The use of foreign cotton by American mills has slightly increased. Referring to details below under head of "The Importation of Foreign Cotton," manufacturers North and South have taken of Egyptian and other importations (mostly Egyptian) the equivalent in American weights of 124,294 bales, against 120,083 last year and 94,729 the year before. Only a small portion was consumed in the South.

The following tables sum up the entire takings and consumption of cotton in the United States:

Takings of Cotton, All Kinds, by American Mills.

Takings:	This year. Bales.		Last year. Bales.	
North—American	2,349,478		2,282,145	
Foreign, reduced to equivalent in bales of American weights	114,596		110,596	
Total takings, *North*		2,464,074		2,392,741
South—American	2,374,225		2,163,505	
Foreign	*9,698		†9,487	
Total takings, *South*		2,383,923		2,172,992
Total takings, North and South		4,847,997		4,565,733

*6758 actual bales, all Egyptian, equal to 9698 American bales.
†6766 actual bales, mostly Egyptian, equal to 9487 American bales.

The consumption, all kinds, was:

	This year. Bales.	Last year. Bales.
North	2,575,596	2,247,596
South	2,383,923	2,172,992
Total consumption, all kinds	4,959,519	4,420,588

In relation to Southern mill stocks, which are included in the count of old cotton carried over at the close of the season, I have this year extended my investigations so as to include that important branch of data, and the figures I have used for the close of this season are actual, not approximations.

Cotton Takings by American Mills.*

Year ending August 31.	Northern Mills. Bales.	Southern Mills. Bales.	Total. Bales.	Crop. Bales.
1890	1,799,258	546,894	2,346,152	7,311,392
1891	2,027,362	604,661	2,632,023	8,652,597
1892	2,190,766	686,080	2,876,846	9,035,379
1893	1,687,286	743,848	2,431,134	6,700,365
1894	1,601,173	718,515	2,319,688	7,549,817
1895	2,083,839	862,838	2,946,677	9,901,251
1896	1,600,271	904,701	2,504,972	7,157,346
1897	1,804,680	1,042,671	2,847,351	8,757,964
1898	2,211,740	1,231,841	3,443,581	11,199,994
1899	2,190,095	1,399,399	3,589,494	11,274,840
1900	2,068,300	1,597,112	3,665,412	9,436,416
1901	1,967,570	1,620,931	3,588,501	10,383,422
1902	2,050,774	1,937,971	3,988,745	10,680,680
1903	1,967,635	2,000,729	3,968,364	10,727,559
1904	2,026,967	1,919,252	3,946,219	10,011,374
1905	2,282,145	2,163,505	4,445,650	13,565,885
1906	2,349,478	2,374,225	4,723,703	11,345,988

*American cotton.

The importation of foreign cotton during the year amounted to 66,332,588 pounds, of which 2,878,789 pounds were re-exported, leaving the net amount retained in the United States 63,453,790 pounds, an equivalent of 124,294 bales in American weights, against 61,912,279 pounds, equal in American weights to 120,083 bales.

American Cotton Crop for Four Years.
(Year Ending Close of August.)

	1905-06. Bales.	1904-05. Bales.	1903-04. Bales.	1902-03. Bales.
Port receipts	8,029,544	10,319,782	7,252,222	7,724,104
Overland to mills	1,008,463	1,128,183	939,943	1,083,383
Southern consumption	2,374,225	2,163,506	1,919,252	2,000,729
	11,412,232	13,611,470	10,111,417	10,808,216
Less taken by Southern mills from ports	66,244	45,585	100,043	80,657
Total crops	11,345,988	13,565,885	10,011,374	10,727,559
Exports:				
Great Britain	2,883,748	4,140,474	2,577,977	2,851,528
France	776,057	857,738	705,059	785,079
*Continent and Channel	2,932,818	3,747,104	2,745,009	3,039,959
Canada	†139,585	131,582	89,956	123,677
Total exports	6,732,208	8,876,898	6,118,001	6,800,843
Stock close of year	196,797	319,405	112,427	162,040
Northern mill takings	2,349,478	2,282,145	2,026,967	1,967,635
Average gross weight of crop per bale, pounds	510.91	515.58	507.69	508

*Including Mexico, Japan and China, details of which are given in Export Table.
†Inclusive of 4979 to Japan via British Columbia, included in exports to Continent.

Net Receipts of Cotton at United States Ports.
(As per form in use by the Cotton Exchanges.)

	1905-06. Bales.	1904-05. Bales.
New Orleans	1,653,142	2,689,520
Galveston	2,656,600	2,879,336
Port Arthur and Texas City	116,303	124,815
Mobile and Pensacola	416,425	524,707
Savannah	1,514,953	1,877,343
Charleston	189,604	225,366
Wilmington	325,818	375,383
Norfolk	668,578	822,930
Baltimore	68,067	72,427
New York	6,575	33,798
Boston	63,828	83,644
Philadelphia	10,317	13,645
Jacksonville and Fernandina	19,396	14,544
Newport News	15,083	18,244
Brunswick	180,853	199,193
Laredo and El Paso, Texas	6,066	20,776
Eagle Pass, Texas	3,529	13,921
Pacific coast ports	120,273	325,917
Minor points	3,144	4,273
Total port receipts	8,029,544	10,319,782

NOTE.—Light weight round bales have in all cases been included in receipts as half-bales.

Exports.

	1905-1906. Great Britain. Bales.	France. Bales.	*Continent and Channel. Bales.	Total. Bales.	Total 1904-05. Bales.
New Orleans	751,945	250,375	567,286	1,568,606	2,459,369
Galveston	1,040,079	318,428	778,547	2,137,054	2,304,417
Mobile and Pensacola	139,921	81,185	95,421	316,527	389,360
Savannah	201,862	74,322	690,571	966,755	1,291,111
Charleston	5,500	.....	4,400	9,900	80,042
Wilmington	139,595	5,225	175,263	320,083	365,099
Norfolk	14,862	9,000	3,327	27,189	23,212
Baltimore	85,222	13,974	56,732	155,928	204,514
New York	176,825	23,548	313,615	513,988	659,261
Boston	†130,545	.....	9,027	139,572	226,399
Philadelphia	35,591	.....	4,170	39,761	71,682
Newport News	6,858	.....	225	7,083	23,667
Brunswick	108,068	.....	40,483	148,551	169,628
San Francisco	.....	.....	38,392	38,392	153,070
San Diego	.....	.....	.....	.....	.....
Port Townsend	.....	.....	64,918	64,918	144,248
El Paso, etc	46,875	.....	90,441	137,316	180,337
Totals	2,883,748	776,057	2,932,818	6,592,623	8,745,316
Last year	4,140,474	857,738	3,747,104	8,745,316	.....
Year before	2,577,977	705,059	2,745,009	6,028,045	.....

*Included under Continent are exports to Mexico and Japan and China, which are to Mexico this year 2168 from New Orleans, 850 from Galveston, none from Mobile, none from New York, 5906 from Laredo, 150 from El Paso, 3529 from Eagle Pass and 12,027 from Nogales, etc., a total of 24,620, against 68,487 last year and 56,475 the year before last; to Japan and China 131,812 from San Francisco, Portland and other ports, against 333,883 last year and 47,645 the year before.
†Exclusive of 6602 to British North America included in total to Canada.

COTTON CONSUMPTION IN THE SOUTH.

Census of Southern Mills, Made Up From Actual Returns of the Mills, by Mail and Telegraph, for Year Ending Close of August, 1906.

The actual consumption of cotton by the mills of the South during the commercial year just ended has reached a total of 210,720 bales more than last year, and is that much ahead of the largest consumption ever before recorded. Every State shows an increase. North Carolina leads with an excess of 92,255 bales, and from second place has taken first rank as the largest consumer of cotton of any State in the South. South Carolina follows with a gain of 41,225 and Georgia comes next with an increase of 31,338, while Alabama is 16,013 ahead. These States used 180,831 bales of the 210,-

720 excess above noted. The year has been a good one, but complaints of scarcity of labor come from nearly every section. Nearly every mill reports full time, but while many more mills and spindles have been at work, it is safe to say that with the necessary help the handsome total shown would have been exceeded by about 250,000 bales. The growth of spindles still continues at a handsome rate. In the active mills 625,241 more spindles are recorded, while the number of idle spindles have dropped from 210,702 at this time last year to 81,840, and 32 more mills are now in operation. The new not completed list includes 33 mills with 578,420 spindles, and I have a number of reports of new mills projected, the building of which is expected to commence in the near future. Of the mills already building, many will probably be completed and ready for business during the coming fall and winter. The picture could hardly be drawn more gratifying. Good prices for the raw material and a handsome yield of the staple have brought increased prosperity, except in several of the Gulf States where the crops were short, and the mills have been able to thrive on an average of more than 11 cents per pound for middling cotton.

The total consumption for the year is 2,374,225 bales, against 2,163,505 last year and 1,919,252 the year before, an excess over last year of 210,720 bales and over the year before of 454,973.

Referring to the details given in the tables annexed, I desire to emphasize the fact that they are in no sense guesses or estimates. The list of mills in the South was made up after many weeks of patient and careful investigation, by correspondence in every State and by comparison also with the publications of the "Textile World" and "Blue Book" just issued, which are considered standard authorities as compilers of mill directories, so that I have had the benefit of their investigations as well as of my own experience of many years in locating the mills. Every mill in the South has reported to me direct but 16 out of 794 regular cotton mills, and these (of which I have obtained data sufficiently close to cover all the purposes of an actual census) used but an infinitesimal fraction of the total quantity consumed. In addition I have secured returns from every woolen mill, batting and mattress factory and every knitting mill that has spindles and used raw cotton; in fact, I have knocked at the doors of every institution of any kind in the South that uses raw cotton and have invariably met with kind and prompt responses.

Consumption of Foreign Cotton in the South.

	Mills.	This year. Bales.	Last year. Bales.
Alabama	1	549	703
Georgia	1	1,894	1,324
North Carolina	4	1,599	1,726
South Carolina	4	2,716	3,013
	10	6,758	6,766

Equal in bales of American weights to 9698 this year and 9487 last year.

Southern Spindles Consuming Foreign Cotton.

	In operation.
Alabama	8,437
Georgia	24,192
North Carolina	14,342
South Carolina	14,710
	61,681

Total in operation 61,681 spindles, against last year 75,840.

How the cotton-manufacturing industry has advanced is best told by the following showing. The yearly net additions are new mills, less deductions on account of burnt, dismantling, etc.:

Total mills in the South consuming raw cotton September 1, 1890 (old, new and not complete)	336
1890-1891, net additions	4
1891-1892, "	16
1892-1893, "	13
1893-1894, "	17
1894-1895, "	49
1895-1896, "	40
1896-1897, "	7
1897-1898, "	9
1898-1899, "	59
1899-1900, "	113
1900-1901, "	25
1901-1902, "	28
1902-1903, "	24
1903-1904, "	22
1904-1905, "	15
1905-1906, "	17
Total mills in the South consuming cotton (old, new and not completed) September 1, 1906	794

An increase since 1890 of 458 mills. I have used the words "mills consuming cotton" because there are factories known as woolen mills, etc., each consuming considerable raw cotton annually and which naturally are classed as cotton consumers.

In this connection the record of spindles since 1860 may prove of still more interest:

1860	295,359
1870	338,860
1880	561,360
1890	1,819,291
1895	3,177,310
1900	6,267,163
1901	6,531,894
1902	7,512,982
1903	8,248,275
1904	8,615,369
1905	9,205,949
1906	9,760,192

The roster of mills is as follows:

Total number last year	777
Crossed out and merged into other concerns	16
	761
New and uncompleted added to list	33
Total number of cotton mills in the South	794

The record of spindles in the South shows:

	This year.	Last year.
Total in operation	9,099,932	8,474,691
Idle	81,840	210,702
New, not completed	578,420	520,556
Grand total	9,760,192	9,205,949

showing an increase of spindles, active, idle and not complete, over last year of 554,243, and a net gain of spindles at work of 625,241.

As indicated by the tables annexed, the total consumption in all the mills, old and new, for the year was 2,374,225 bales, against 2,163,505 last year and 1,919,252 for the season of 1903-1904, an increase over last year of 210,720, and over the year before of 454,973. The changes in each State as compared with last year were as follows:

	Gains, bales.
Alabama	16,013
Arkansas	132
Georgia	31,338
Kentucky	2,549
Louisiana	3,621
Mississippi	1,170
Missouri	779
North Carolina	92,256
South Carolina	41,525
Tennessee	6,955
Texas	8,123
Oklahoma	....
Virginia	6,260
Total gain	210,720

The avertge consumption per spindle in the mills in operation has been 2.86 pounds more than last year and 5.95 more than the year before.

The comparisons for the past 14 years are annexed:

Average Consumption Per Spindle by Southern Mills.

	Pounds per spindle.
1905-1906	123.69
1904-1905	120.83
1903-1904	117.74
1902-1903	136.44
1901-1902	140.87
1900-1901	135.77
1899-1900	154.58
1898-1899	162.51
1897-1898	155.66
1896-1897	140.16
1895-1896	142.67
1894-1895	164.45
1893-1894	147.60
1892-1893	160.30

The course of consumption in South since 1889-90 is shown at a glance as follows:

	Consumption. Bales.	Increase.	Decrease.
1889-1890	546,894	.....	.....
1890-1891	604,661	57,767	.....
1891-1892	686,080	81,419	.....
1892-1893	743,848	57,768	.....
1893-1894	718,515	.....	25,333
1894-1895	862,838	144,323	.....
1895-1896	904,701	41,863	.....
1896-1897	1,042,671	137,970	.....
1897-1898	1,231,841	189,170	.....
1898-1899	1,399,399	167,558	.....
1899-1900	1,597,112	197,713	.....
1900-1901	1,620,931	23,819	.....
1901-1902	1,937,971	317,040	.....
1902-1903	2,000,729	62,758	.....
1903-1904	1,919,252	.....	81,477
1904-1905	2,163,505	244,253	.....
1905-1906	2,374,225	210,720	.....

Net increase since 1890 of 1,827,331 bales.

Southern Cotton Mills in 1905-1906.

MILLS.

	Total.	In operation. Old.	New.	Idle.	New, not completed.
Alabama	69	67	1	1	..
Arkansas	4	2	..	2	..
Georgia	147	139	..	1	7
Kentucky	9	8	..	1	..
Louisiana	7	5	..	2	..
Mississippi	25	23	..	2	..
Missouri	3	2	..	..	1
North Carolina	295	271	2	5	17
South Carolina	174	167	1	..	6
Tennessee	27	23	..	3	1
Texas	18	17	..	1	..
Oklahoma	1	1	..	..	1
Virginia	15	13	..	2	..
Total	*794	737	4	20	†33
Last year	777	701	8	38	30
Year before	762	660	11	57	34

*Including 12 mills for foreign cotton, 12 in operation and none new, not complete.
†Including mills commenced this year and those under this head last year not yet completed.

LOOMS.

	Active.	Idle.	Not complete.	Total.
Alabama	17,271	.....	8	17,279
Arkansas	440	.....	.....	440
Georgia	33,944	.....	615	34,559
Kentucky	1,292	73	.....	1,365
Louisiana	2,100	75	.....	2,175
Mississippi	4,071	340	470	4,881
Missouri	356	.....	360	716
North Carolina	49,624	455	2,496	52,575
South Carolina	83,334	.....	3,298	86,632
Tennessee	4,277	488	.....	4,765
Texas	2,158	.....	182	2,340
Oklahoma	.....	.....	.....	.....
Virginia	7,770	98	1,128	8,996
Total	206,637	1,529	8,557	216,723
Last year	201,054	4,983	8,090	214,127
Year before	185,144	5,773	15,906	206,823

SPINDLES.

	Total.	In operation. †Old.	New.	Idle.	‡New, not completed.
Alabama	884,549	872,449	500	3,500	8,100
Arkansas	25,624	14,624	.....	11,000	.....
Georgia	1,630,175	1,537,875	.....	5,000	87,300
Kentucky	86,226	83,226	.....	3,000	.....
Louisiana	97,196	92,700	.....	4,496	.....
Mississippi	178,784	153,944	.....	11,320	13,520
Missouri	24,416	14,416	.....	.....	10,000
North Carolina	2,632,499	2,372,247	13,064	18,900	228,288
South Carolina	3,526,609	3,354,149	4,000	.....	168,460
Tennessee	251,894	231,690	.....	14,404	5,800
Texas	108,600	94,336	.....	5,120	9,144
Oklahoma	3,000	.....	.....	.....	3,000
Virginia	310,620	260,712	.....	5,100	44,908
Total	*9,760,192	9,082,368	17,564	81,840	578,420
Last year	9,205,949	8,461,039	13,652	210,702	520,556
Year before	8,615,369	7,635,376	16,122	278,603	685,268

*Exclusive of 61,681 spindles using foreign cotton, say, 8437 active in Alabama, 24,192 active in Georgia, 14,342 active in North Carolina, 14,710 active in South Carolina.
†Including spindles added to old mills less spindles thrown out during year, and new, not complete mills of last year which started operations this season.
‡Includes spindles *being* added to old mills as well as those in new concerns.

Southern Consumption of American Cotton Year Ending August 31.

(Actual figures reported by the mills.)

States.	*No. mills.	†Looms.	†Spindles.	Bales. 1906.	1905.
Alabama	68	17,271	872,949	239,885	223,872
Arkansas	2	440	14,624	3,372	3,240
Georgia	139	33,944	1,537,875	514,673	483,335
Kentucky	8	1,292	83,226	28,371	26,822
Louisiana	5	2,100	92,700	17,697	14,076
Mississippi	23	4,071	153,944	41,298	40,128
Missouri	2	356	14,416	7,240	6,461
North Carolina	272	49,624	2,385,311	694,405	602,150
South Carolina	167	83,334	3,358,149	666,715	625,190
Tennessee	23	4,277	231,690	58,402	51,447
Texas	17	2,158	94,336	36,895	28,773
Oklahoma	...	.....	.....	.....	.....
Virginia	13	7,770	260,712	65,271	59,011
Totals	739	206,637	§9,099,932	2,374,225	2,163,505
Less consumed and taken from Southern seaports and included in port receipts				66,344	45,585

Net consumption to be added to crop		2,307,981	2,117,920

*Mills in operation only. For total in South see other table.
†Employed in mills in operation. For total looms and spindles in South see other table.
‡Exclusive of two mills in operation using only foreign cotton—one in North Carolina and one in South Carolina.
§Spindles working American cotton only. For statement foreign see elsewhere.

United States Spinners' Takings of American Cotton.

		1905-1906.		1904-1905.
Total crop United States		11,345,988		13,565,885
Stocks at ports beginning of year		319,405		112,427
Total Supply		11,665,393		13,678,312
Exported during year	6,592,623		8,745,316	
Sent to Canada	139,585		131,582	
Total	6,732,208		8,876,898	
Less American cotton returned from foreign ports:				
To New York	1,389		417	
New Orleans	...		...	
Boston	86		...	
	1,475		417	
	6,730,733		8,876,481	
Burnt at ports	14,160		36,776	
Stock at close of year	196,797		319,405	
		6,941,690		9,232,662
Total takings for consumption, United States		4,723,703		4,445,650
Of which—				
Taken by spinners in Southern States—total		2,374,225		2,163,505
Taken by Northern spinners		2,349,478		2,282,145

Coal Production of the United States in 1905.

According to the report of Edward W. Parker, Statistician of the United States Geological Survey, which is now in press, the production of coal in 1905 amounted to 392,919,341 short tons, having a value at the mines of $476,756,963, surpassing in both quantity and value all previous records in the history of the country. Compared with 1904, when the production amounted to 351,816,398 short tons, valued at $444,371,021, the output in 1905 exhibits an increase of 41,102,943 short tons, or 11.7 per cent. in quantity, and of $32,385,942, or 7.3 per cent. in value. Prior to 1905 the maximum output of coal was obtained in 1903, when the production amounted to 357,356,416 short tons, valued at $503,724,381, compared with which the record for 1905 shows an increase in production of 35,562,925 short tons, and of $26,967,418. The high value recorded in the statistics for 1903 was due to the somewhat abnormal inflation of prices, caused by the shortage of fuel supplies, which resulted from the strike in the anthracite region of Pennsylvania in the preceding year. The lower values in 1904 as compared with 1903 were simply a return to normal conditions, but the decline in 1905 was the result of a production in excess of market requirements, unusually large as they were.

Of the total production in 1905, 69,339,152 long tons (equivalent to 77,659,850 short tons) were Pennsylvania anthracite, with a value at the mines of $141,879,000. The total production of bituminous coal and lignite was 315,259,491 short tons, valued at $334,877,963. The production of anthracite coal in Pennsylvania in 1905 was 4,020,662 long tons (or 4,503,151 short tons) more than that of 1904, while the increase in the production of bituminous coal and lignite was 36,599,882 short tons. A portion of these increases in both anthracite and bituminous production was due to the efforts of operating companies to provide a supply of fuel in anticipation of a suspension of mining in April, 1906, when the wage-scale agreements in the organized coal-producing States and the award of the Strike Commission in the anthracite region of Pennsylvania would terminate.

It is a fact worthy of note that the total increase in the production of coal in the United States in 1905 over 1904 was larger than the production of France in 1904, or of the production of any other foreign country except Great Britain, Germany and Austria-Hungary, and was almost equal to that of the last mentioned. The total production of this country last year was nearly 50 per cent. larger than that of Great Britain, which until 1899 was the leading coal-producing country of the world, and was more than double that of Germany. Another interesting fact presented in the statistics of the production of coal in the United States is that in each decade the output has been practically doubled. Up to the close of 1865 the total production had amounted to 284,890,055 tons. In the decade from 1866 to 1875, inclusive, the production amounted to 419,425,104 tons, making the total production up to the close of 1875 704,315,159 tons. In the following decade, from 1876 to 1885, inclusive, the production amounted to 847,760,319 tons, something more than double the total production up to the beginning of that decade. At the close of 1885 the total production amounted to 1,552,075,478 tons, and the production for the 10 years ending with 1895 was 1,586,098,641, and the total production to the close of 1895 amounted to 3,138,174,119 short tons. In the decade ending December 31, 1905, the total production has amounted to 2,832,599,452 short tons, and the grand total from the beginning of coal mining has amounted to 5,970,773,571 short tons.

State or Territory.	1904. Quantity. Short tons.	1904. Value.	1905. Quantity. Short tons.	1905. Value.
Alabama	11,262,046	$13,480,111	11,866,069	$14,387,721
Arkansas	2,009,451	3,102,660	1,934,673	2,880,738
California and Alaska	79,582	377,306	80,824	395,975
Colorado	6,658,355	8,751,821	8,826,429	10,810,978
Georgia and North Carolina	390,191	476,996	353,548	456,184
Idaho	*3,480	13,730	5,882	17,846
Illinois	36,475,060	39,941,993	38,434,363	40,577,502
Indiana	†10,842,189	†12,004,300	11,855,252	12,497,255
Indian Territory	3,046,539	5,532,066	2,924,427	5,145,358
Iowa	6,519,933	10,504,406	6,798,609	10,586,381
Kansas	6,333,397	9,640,771	6,423,979	9,350,542
Kentucky	†7,576,482	†7,868,192	8,432,523	8,385,232
Maryland	4,813,622	5,729,085	5,108,539	5,831,760
Michigan	1,342,840	2,424,935	1,473,211	2,512,697
Missouri	4,168,308	†6,801,751	3,983,378	6,291,661
Montana	1,358,919	2,194,548	1,643,832	2,823,350
New Mexico	1,452,325	1,904,499	1,649,933	2,190,231
North Dakota	†271,928	†389,052	317,542	424,778
Ohio	†24,400,220	†26,579,738	25,552,950	26,486,740
Oregon	111,540	243,588	109,641	282,495
Pennsylvania:				
Anthracite	73,156,709	138,974,020	77,659,850	141,879,000
Bituminous	†97,938,287	†94,428,219	118,413,637	113,390,507
Tennessee	4,782,211	5,642,393	5,963,396	6,797,550
Texas	1,195,944	1,983,636	1,200,684	1,968,558
Utah	1,493,027	1,943,440	1,332,372	1,793,510
Virginia	†3,410,914	†2,921,911	4,275,271	3,777,325
Washington	3,137,681	5,120,931	2,864,926	5,141,258
West Virginia	†32,406,752	†28,647,014	37,791,580	32,341,790
Wyoming	5,178,556	6,747,909	5,602,021	7,336,951
Total	†351,816,398	†$444,371,021	392,919,341	$476,756,963

*Includes production of Nevada.
†Corrected figures. In the report for 1904 the total production for the United States for that year was given at 352,310,427 short tons, valued at $444,816,288. In collecting the statistics for 1905 it was found that in several cases where properties had changed hands or the name or the company had been changed the preceding year the production for the entire year had been reported by both owners. The duplications thus made have been corrected for this report.

RICHES OF CUMBERLAND GAP COAL FIELD.

[Written for the Manufacturers' Record.]

Since 1892, previous to which time it had no railroad connections, the development of the region of the Cumberland Gap in Kentucky and Tennessee has been going on until its output of coal has reached 1,000,000 tons a year. In 1902 the United States Geological Survey in co-operation with the State Geological Department of Kentucky, began a study of the Cumberland Gap coal field in Bell and Harlan counties, in the southeast corner of Kentucky, and in Claiborne and Campbell counties in Tennessee, and extending in a general northeast-southwest direction between Pine and Cumberland mountains from Fork mountain to the heads of the Poor and Clover forks of the Cumberland river, with a length of about 90 miles and a width of from 15 to 20 miles. Partial results of the study are embodied in a paper of the Geological Survey by Messrs. George Hall Ashley and Leonidas Chalmers Glenn, from which the following extracts bearing not only upon the geology and the mineral resources, but also other natural wealth, have been made:

"The field is bounded on the northwest by the long, straight crest of Pine mountain, on the southeast by the somewhat similar crest of Cumberland mountain. Between these an irregular series of mountains with broken and irregular crests rise to a height of 3400 feet above tide, or over 2000 feet above the main drainage line of the basin. The main streams have developed some bottom land, but the smaller tributaries are generally flowing in narrow V-shaped canyons. The slopes are generally steep and heavily timbered.

"The elevation of this field varies from about 980 feet above tide at the point where the Cumberland river leaves the basin at Pineville Gap to over 3400 feet above tide in the highest points in Black and Cumberland mountains. The drainage of most of the basin is entirely into the Cumberland river, either through the three forks—Poor, Clover and Martins—which unite at Harlan to form the Cumberland river, or through the smaller tributaries of the Cumberland, of which Wallins, Puckett, Yellow and Clear creeks are the principal ones below the forks.

"The rocks exposed in this basin belong, as far as recognized, to the Pottsville group of the Pennsylvania series (coal measures). They have a thickness of about 4000 feet. The lower third of the rocks, which are below drainage in the center of the basin, are mainly sandstones. The upper two-thirds are shales and sandstones in about equal proportions. For the convenience of mapping the upper two-thirds have been divided into the following formations, the formation lines usually being drawn at the bottom of some important coal or at the top of some traceable sandstone: Bryson formation, Hignite formation, Catron formation, Mingo formation, Hance formation and Lee formation. The Lee formation is believed to correspond to the Lee as defined by Campbell and Keith. These formations and a number of the more important sandstone beds which have been named as members are shown on the map.

"The geologic structure is that of a flat-bottomed U-shaped trough or syncline. The axis of the syncline is almost parallel to the Cumberland river, and the rocks rise with low dips from either side of this axis nearly to the edges of the basin, where they are sharply upturned in Pine and Cumberland mountains. Transverse folding is very slight, except in the neighborhood of Middlesboro and Pineville, where a belt of faulting and crushing crosses the basin. The upturning of the strata along the Pine mountain is due to a major overthrust fault on the north side of the mountain. The upturning in Cumberland mountain is due to the fold on the east known as the Powell-valley anticline. Through the greater part of the bottom of the basin the dip does not average more than 100 feet to the mile.

"The development of the coal is confined to the western part of the field studied, mainly to the west of Middlesboro, in Claiborne county, Tennessee. In that part of the field exploration has shown 13 coals of workable thickness and quality. Of these, eight coal beds at present are commercially mined. These vary in thickness from four to six feet. Nearly all of these beds have one or more partings. The coal of the eastern part of the field has been tested, and knowledge of it is derived largely from natural exposures, a few small country banks and a small number of facings. In the eastern part of the field around Harlan one coal with a thickness of about four feet has been shown to have an area of probably 100 square miles. Above this are usually from one to three other coals, which are locally workable, and may be worked over a large area in that part of the district. Between the Harlan district and the Middlesboro district from one to three workable coals underlie most of the area. The Harlan coal, as a rule, is not as badly split up with partings as the coals above Middlesboro. In quality these coals compare well with the Westmoreland gas coals of Pennsylvania. Some of the coals at Middlesboro are successfully coked, and doubtless most of the coals of this area are of the same character. In percentage of moisture, ash and sulphur these coals show a purity equal to probably the best of the Appalachian coals.

"On account of the nearness of this field to the recently-developed oil fields of Kentucky—Knox and adjacent counties—the question of the presence of oil and gas in

In the decade ending December 31, 1905, the total production has amounted to 2,832,599,452 short tons, and the grand total from the beginning of coal mining has amounted to 5,970,773,571 short tons.

Of the total amount of bituminous coal produced in 1905, 103,396,452 short tons were mined by the use of mining machines, as compared with a machine-mined product in 1904 of 78,606,997 short tons. The number of mining machines in use increased from 7663 in 1904 to 9184 in 1905.

The total number of men and boys employed last year in the coal mines of the United States was 626,174, against 593,693 in 1904. Of the total number employed in 1905, 165,406 were in the anthracite mines of Pennsylvania and 460,768 were employed in the bituminous coal mines. The average number of days worked by the anthracite miners was 215, while the bituminous miners made an average of 211 days.

The larger part of the increased production in 1905 was due to the great activity in the iron industry, as is shown by the fact that the amount of coal made into coke increased from 31,278,537 short tons to 42,412,328 short tons, and that the larger increases were in the coking coal-producing States and those which furnished fuel to the iron furnaces. Accompanying table exhibits the production and value in the different States in 1904 and 1905.

this field is one that is frequently brought forward. In several places traces of oil have been found upon the surface of pools along the streams, particularly at low water. Generally the showing was very slight. In one case on Catron creek, reported after the completion of the field work in 1903, it is said that considerable oil showed. A few wells have been drilled for oil. One of these is in the town of Middlesboro, Ky., and one on Bear creek in the Log mountains. Other wells have been drilled for water. In all cases these found water, but no oil or gas in any quantity. While it cannot be asserted that no oil or gas will be found in this district, a theoretical consideration of the structure of the fields leads to a strong doubt of either of those substances ever being obtained there. On account of the upturned position of the rocks in Pine and Cumberland mountains opportunity has been given theoretically for the escape of the more volatile hydrocarbons, and through the structure within the field, as on Brush mountain, Rocky Face mountain, and probably many minor faults scattered through the field which were not seen, due to the stresses and movements to which the rocks here have been subjected, abundant opportunity has been granted the hydrocarbons to escape.

"As is usually the case with coal-measure sandstones, the sandstones of this district are usually shaly and seldom suitable for building purposes. No sandstones were seen within the limits of the basin proper that suggested the existence of desirable building stones, except on the very flanks of the basin in Pine and Cumberland mountains. Here the sandstones of the Lee formation are upturned, and in places these sandstones are sufficiently pure to make an enduring stone if stones of suitable color can be found. A small amount of stone was noticed on the trail over Laurel Hill from near the Seven Sisters of Cumberland to a little above Wasiota, and at several places along the mountains these sandstones gave promise of stones suitable for rough structural purposes, with a possibility of some finer gray stone being obtained. On account of the lack of value of the coals in Pine and Cumberland mountains a very small amount of work was done there, so that we do not feel prepared to indicate the position or extent of the stones there that may prove valuable for building stones, but simply to suggest their presence and the desirability of further exploration in those areas.

"The soils of this region consist of the bottom lands along the Cumberland and its main tributaries and the soils of the hillsides. The Cumberland valley soils are fairly productive, considering the lack of limestone in the drainage area from which they are derived. The hillside soils yield largely if properly cultivated, but as they must lie idle every other year, and cultivation must be largely by hand, they cannot be considered as desirable farming lands. It is a little surprising to find the soil on a hill slope so steep that it cannot be plowed yielding from 60 to 80 bushels of corn to the acre, and continue to give a good yield for 20 to 25 years without fertilization if allowed to lie idle every other year.

"Although at present little considered, the clays of this region may ultimately prove of as much value as the coals. Few shales were noted which appeared suitable for paving brick or similar purposes, the shales usually being sandy, or, when containing but a small percentage of silica, being fissile or bituminous or otherwise apparently not suitable for the manufacture of the products named. On the other hand, however, the clays found under the coals appear to be of excellent quality, and there is little doubt that in time their use for the manufacture of fire-brick and probably for the manufacture of a large variety of clay products will be one of the most valuable assets of this field. In a general way the presence of fire-clay, and in many cases its thickness, has been noted in connection with the coal. It is probable that special tests will have to be made of the fire-clays to determine at what horizons these present the most suitable characteristics for any desired purpose. In 1904 the Middlesboro Pressed Brick Co. began the successful manufacture of fire-brick, paving brick and high-grade building brick.

"As far as known, no metallic minerals in workable quantities exist in this field. We were shown a specimen of limonite of the Oriskany type which was reported to come from the headwaters of Shillaly fork. The whole of that form was not examined, and it is possible that near the headwaters it has cut through the bottom of the Lee formation, but it hardly seemed probable that it could have cut down to the Oriskany.

"The profile of most of the streams of this district is not favorable to the production of water-power, though a majority of them have a descent of from 1000 to 2000 feet. In most cases the larger share of that descent is close to the heads of the streams, where little volume has been attained. Two exceptions to that rule exist in the headwaters of Martins fork and Shillaly fork. On Shillaly fork there is a fall of about 1000 feet within a fraction of a mile where the creek turns from the southwestward across to a northward course in running into Clear fork of Yellow creek. No estimate was made of the volume of water, but it is certainly enough to furnish probably several hundred horsepower even in a dry season. Martins fork has a similar fall, but it extends over a much greater distance. In this case it would be necessary to build a high retaining dam, and probably then to carry the water for some distance along the bank until a suitable head had been obtained. Small powers could possibly be obtained from some of the streams on the flanks of Pine mountain or some of the other streams descending Cumberland mountain. In most such cases the method of obtaining the power would have to be by the building of high impounding dams near the lower end of the stream courses, selecting some point where the stream has cut through one of the massive cliff-making sandstones. Small water-power is now developed at a number of points along Cumberland river and its principal tributaries, and many small mills are to be found scattered in many of the smaller branches of the principal creeks. The power developed in these cases, however, cannot be considered of commercial quantity.

"A large share of this area is at present covered with an excellent growth of timber, and much of the surface is probably too steep to be of value for other purposes than raising timber. In the district west of Middlesboro nearly or quite all the first growth of timber has been removed and a good second growth has sprung up. In the district east of Middlesboro the cutting has been selective. The black walnut has practically all been removed, including the stumps. At present the main lumbering is poplar, of which a large quantity and fine growth has existed. At the present rate it will take but a few years to completely exhaust this region of that valuable timber. Near Middlesboro considerable chestnut has been cut for the bark for tanning purposes. Farther to the east there is yet a large amount of fine timber, mainly chestnut and oaks. Trees with diameter of from three to four and five feet are abundant. As before stated, it would seem that a large part of these mountains presents an ideal region for scientific lumbering, the hill slopes being much too steep for practical farming, such farming as is done usually being at the ultimate expense of the soil, for after the exhaustion of the plant and food material in the soil it is allowed to lie idle in such a way that a large share of it is gullied and washed away before a new growth of timber can be started to hold it in place."

THE BIRMINGHAM DISTRICT.

No Great Quantity of Iron to Be Had the Rest of the Year.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., September 10.

There is not a great quantity of iron to be had in this section for delivery during the balance of the year. Fancy prices still exist, but there are no indications of a runaway market any more. The consumers are making inquiry for the product for delivery during the first half of the coming year. Prices on iron delivery in 1907 have been fixed at $15 to $15.50 per ton, No. 2 foundry basis, and considerable iron has already been disposed of. The Sloss-Sheffield Steel & Iron Co. announces sales aggregating something like 90,000 tons for delivery next year and a lively inquiry on hand. The Alabama Consolidated Coal & Iron Co. has sold well ahead, too, and it is understood quote no iron under $15.50. A small lot of iron, less than 200 tons, was sold during the past week by the Alabama Consolidated, immediate delivery, at $17 per ton. Iron to be delivered within 90 days has sold at $16 per ton, while special brand iron has been bringing $16.50 right along, where it could be found. Charcoal iron is selling at $22 per ton, with a fair demand for that kind.

There is not a great quantity of ore and coke for the furnace companies in this section, and organizations which will sell furnace companies such raw material are finding a good demand. One furnace which was slated to go into blast today had to postpone the resumption of work on account of the supply of ore not being sufficient to keep it in steady blast until the company's own mines could be producing the required amount of the product. The Tennessee Coal, Iron & Railroad Co. blows in its No. 3 furnace at Bessemer this week, making all five of its furnaces at that place in operation. The large No. 3 furnace of the Republic Company at Thomas is out of blast. Furnaces of the Lacey-Buek, the Birmingham Iron Co. and Central Iron Co. will be producing a steady output of iron within the next few days. The Woodward Iron Co. is pushing repairs on its furnace. Other iron-makers are being gotten into shape, and all efforts are being made to improve the production as much as possible.

Some of the larger iron manufacturers in this district are a little behind in their orders, but are doing everything possible to catch up. There are no indications of a cessation of operations at furnaces for some time except that it be on account of the raw-material supply. At some furnaces the coal, coke and ore bins are far from being filled up.

The production during the last three months of the year in the Birmingham district promises to be better than for any three months in the past two years. The furnace yards in this section continue to show great signs of bareness, and what little iron is to be seen still awaits instructions as to delivery, and much of this will begin moving in the next few weeks.

Furnaces generally in this district now are in fine shape, and as soon as the raw-material supplies have been bettered there should be a healthy output.

The following quotations are reported: Immediate delivery iron in small lots, No. 2 foundry basis, $17 per ton; iron to be delivered within 90 days, $16 per ton, No. 2 foundry basis; iron to be delivered during first half of coming year, $15 to $15.50 per ton; grades under No. 2 foundry, 50 cents per ton less.

In finished iron and steel there is no change in the situation. Cast-iron pipe works, steel plants, machine shops, foundries and soil-pipe works are all doing well, and have a good line of orders in hand. The prospects are very bright for the future with these concerns. The melt in this district this year will be greater than ever before. The expectations are for an increase of a couple of hundred thousand tons in the iron production for this year as compared to last year in Alabama.

As was predicted, there has been a change in the directorate of the Southern Steel Co., and that concern has absorbed the Lacey-Buek Iron Co. and the Chattanooga Coal & Iron Co. At a meeting of directors of the Southern Steel Co. held in New York last week the following officers and directors were elected: Moses Taylor of Kean, Van Courtlandt & Co., New York, president; C. P. Perin of New York, chairman of the board; E. T. Schuler and C. E. Buek, vice-presidents; George H. Schuler, treasurer, and a board of directors consisting of the above officers and Oakleigh Thorne, Robert B. Van Courtlandt, J. D. Lacey, John Brindley, H. B. Schuler and Courtlandt Van Camp. Vice-President Schuler will be in active charge of the steel plant at Gadsden and the rod, wire and nail mills at Ensley, while Vice-President Buek will be in charge of the mines and blast furnaces. The capital stock of the Southern Steel Co. was increased from $16,000,000 to $25,000,000 at a meeting of the stockholders held in Gadsden a couple of weeks since. By taking in the properties of the Lacey-Buek Iron Co. and the Chattanooga Coal & Iron Co. the Southern Steel Co. is now in a very enviable position and is one of the larger manufacturing companies of the district. All of the officers and directors in the company are acquainted with conditions in the Birmingham district, and will lend every influence towards the upbuilding of their properties and the district in general.

The formation of ore and coal companies in the Birmingham district during the past two weeks and longer are looked on as very significant, and all concerns in this business will find a profitable trade, so it is predicted.

Directors in the Sloss-Sheffield Steel & Iron Co. will visit the Birmingham district this month, inspecting their properties and investigating conditions in general. J. C. Maben, president of the company, will leave after the visit of the directors for a foreign trip which may last two months and longer.

John A. Topping, president of the Republic Iron & Steel Co. and chairman of the executive board of the Tennessee Coal, Iron & Railroad Co., who spent some little time during the first part of the month in the Birmingham district, held a conference with the heads of departments of the two companies during the past week and received verbal reports of conditions in the district. Mr. Topping has made a personal inspection of all the works of the combined company. Statements made some months since of proposed developments are being carried out to the letter. Considerable progress has been made on the excavations for the steel plant at Ensley, and before long the work on the structure over ground will be in hand.

Eagerness for Steel-Making Irons.

The *Iron Age* in its weekly review says:

"The statistics of the production of pig-iron for the month collected by the *Iron Age* clearly show why such eagerness to secure steel-making irons developed during

August. The production of the steel companies declined to 1,237,485 gross tons during that month, as compared with 1,323,391 tons in July and the record of 1,400,395 tons in March. The output of the stacks belonging to the steel companies therefore showed a deficit in August of 85,906 tons. The production of the merchant furnaces was only 4779 tons less in August than it was in July, the figures being 690,011 tons for the latter month, as compared with 685,232 tons in August. It is quite evident, therefore, that the pressure is chiefly on the steel-making irons, of which, too, there is absolutely no stock worth mentioning to act as a reserve. The number of active furnaces is increasing and relief is promised, but it can hardly be expected that it can come this month.

"Just how the situation lies with foundry irons cannot be clearly indicated statistically, because of the refusal of many makers to report stocks on hand. The present time furnishes a good illustration of the fact that lack of data on this point tells against the makers, because it robs the trade of the opportunity to present accurate figures, which might allay the apprehension of buyers and prevent a runaway market.

"There is comparatively little new capacity available in this branch of the industry.

"The excitement in the foundry-iron trade has subsided. There has been little additional buying for forward delivery, for which the market is a trifle easier in spots, and only a moderate volume of business for spot and early delivery at full prices. There are rumors that purchases of pig-iron warants in the Middlesboro district have been made on American account. While these lack confirmation, there is a chance of developments in that direction during the next few weeks.

"It seems to be the policy of the large interests to keep the output of crude steel and of rolled steel products within the limits of the domestic supply of raw material and keep consumers as well satisfied as possible with prorated deliveries.

"The steel scarcity is acute. Chicago has bought 6000 tons of axle billets in Eastern Pennsylvania, the forerunner, it is believed, of further transactions of a like character. In Pittsburg the supply of steel is very short. There is a possibility that prices on billets and bars may be advanced, to take effect on October 1. In that case the products rolled from them, notably sheets and tinplates, may be advanced.

"The next heavy purchasing movement seems destined to develop in steel cars. It is stated that there are now in the market inquiries for 40,000 cars, which would give the mills a very heavy additional tonnage.

"The American Bridge Co. has booked an order for about 20,000 tons of bridge material for the Harriman lines, and other shops East and West have taken upward of 15,000 tons more from a number of sources.

"There is a heavy movement in wire and in tubes. In steel bars some of the larger producers have advanced prices, but this action has not been general on the part of makers. Tinplate buyers have again appeared in the market in numbers, and some large transactions have been closed.

"The foreign markets are strong. The German syndicate advanced prices on billets 5s. per ton on August 23. There are large inquiries in this market for rails for South America, Mexico and Canada, but American mills are quite unable to consider the business."

The State banks and trust companies of Tennessee had on July 1 more than $50,000,000 of deposits.

MINING

Great Cost of Coal Lands and Coke Plants.

A dispatch from Pittsburg to the New York News Bureau says:

"The absence of a large increase in the number of coke plants in the Pittsburg district, as a result of the present prosperity in the iron and steel trade, with resulting excellent prices for coke, has been remarked recently by those familiar with the trade. The explanation given by one of the larger coke producers is that the cost of coking coal lands has risen to a figure that it staggers the prospective investor. He says that five years ago fourth pool coking sold for $100 an acre; now it is held at $1200. Thick vein coal that was not considered good coking coal then, and was valued at $50 an acre, is now worth $600. The cost of development has increased remarkably. One concern here laid aside $300,000 to meet the cost of adding 300 ovens to its plant. The actual cost when the work was completed was $800,000. He says further: 'This shows how expensive the development work has become, even after the coal is secured. Such costs as these make many men who could enter the business hesitate before they tie up so much capital in a single venture. Others cannot command such large sums.'"

These figures show what coking coal lands are bringing in the Pennsylvania coking region. It is not likely that similar figures will prevail in the South for many years, but it is probable that in this section there will be a great advance over present prices. In connection with coal and coke matters the following dispatch from Pittsburg to the New York *Tribune* bearing on the coke and iron situation is of interest:

"A car shortage is worrying shippers here. The coke production is no greater than formerly, but shipments are falling off at the rate of a thousand cars a week. The shortage is mostly in box cars. The Pennsylvania Steel Co. has no surplus of coke, and should a shipment fail for a few days it would be compelled to bank its furnaces and shut down several mills. The Eastern concerns using coke are all about in the same shape. The demand for coke this summer has precluded any possibility of storing an excess. The Western furnaces are in no better shape, and five large furnaces have gone into blast, which will cause another rush for coke. The supply of pig-iron bids fair to be limited this winter. Should a severe cold spell, with snow, set in, half of the furnaces of the country would have to shut down, as the Carnegie Steel Co. is the only concern that carries a surplus stock of coke, and this is smaller than ever before. Coal shippers are only getting 40 per cent. of the cars needed."

Profitable Coal-Mining Operations in Germany.

A very interesting review of the operation of Westphalian coal companies is given in the *Iron and Coal Trades Review* of London. These companies, which operate under a syndicate agreement by which the different companies are allotted an agreed-upon output, show that coal mining in Germany is yielding very satisfactory profits. The Hibernia Company, which has a total capitalization, including bonds or loan capital, of a little over $20,000,000, on an allotment of 5,416,000 tons paid last year and the year before 11 per cent. dividends. The Nordstern, with a capitalization of a little less than $7,000,000 and an allotted output of 2,740,000 tons, paid 15 per cent. last year and 14 per cent. the year before. The Arenberg, with a capitalization of $1,800,000 in round figures, on an allotment of 1,873,000 tons paid 35 per cent. in each year, while the Consolidation Company, with a capitalization of $4,000,000 and an allotment of 1,740,000 tons, paid 23 per cent. last year and 26 per cent. the year before, and the Mulheim Bergwerks, with the same allotment, but with a capitalization of something over $5,000,000, paid 10 per cent. last year and 9 per cent. the year before. The Koln Bergwerks, with a capitalization of $1,500,000 and an allotment of 904,000 tons, paid 25 per cent. in each year, and the Madgeburg Bergwerks, with a capitalization of $750,000 and an allotment of 550,000 tons, paid 28 per cent. each year. Commenting on a review of 18 coal operations, of which these are samples, the *Review* says:

"A calculation shows that the average share capital of these companies works out at about 9s. per ton of allotment, and this rises to 11s. 10d. per ton for the whole of the invested capital, on the assumption that the output of coal equals the allotment. But this is not the case, and for the present year alone the average limitation has been approximately 15 per cent. As a consequence, the average capital invested per ton of coal produced is greater than that already given, while the amount would decrease in the event of the production exceeding the allotment."

To Operate Renfro Mines.

In its issue of August 9 the MANUFACTURERS' RECORD referred to the incorporation of the Wilson Coal Co., Inc., with a capital stock of $250,000, for the purpose of operating the Renfro mines at Renfro, Tenn. In connection with this enterprise the Wilson Coal Co., Inc., whose main offices are in the Postoffice Square Building, Boston, Mass., advises the MANUFACTURERS' RECORD that it has taken over the mines referred to, which are located on the line of the Southern Railway between Nashville and Knoxville. The property comprises about 1000 acres of land and is reported as having three seams of the Sewanee coal running from 4½ to 15 feet in thickness. It is already developed to the extent of having two tunnels, each about 1200 feet long, the present capacity of the mines being 200 tons per day, which will be increased to about 500 tons. It is the intention of the company to install approximately 200 coke ovens during the fall, and it will be in the market for construction material for this purpose. Mr. Charles E. Keyes is the constructing engineer and manager in charge at the mines. Officers of the company are Messrs. Lucius P. Wilson, president, and Fred J. Lucey, treasurer.

To Develop West Virginia Coal.

The Bituminous Coal Company of America, composed of Pennsylvania operators, has leased the Pittsburg vein of bituminous coal underlying 1172.45 acres of coal land along the headwaters of Parr's run, near Moundsville, W. Va. Messrs. H. W. Hunter and David Levi are mentioned as the lessors in the transaction, and by the terms of the lease the Bituminous Coal Company of America will begin the work of sinking a shaft or mine on or before November 15, 1906. It is said the property will be developed to a capacity of 1500 tons per day. Mr. W. G. Smith is the vice-president of the company, and was formerly general manager of the Glen Easton Coal Co. of Moundsville, W. Va., and Pittsburg, Pa.

Shipments of Louisiana Sulphur.

Shipments of sulphur from New Orleans, La., are steadily increasing each month, according to reports from that city, and within the next week 12,000 or 13,000 tons will be shipped to New York, Boston, Philadelphia, Baltimore and other ports. The product is mined at Sulphur City, in the Lake Charles district, and shipped into Algiers over the Southern Pacific Railroad, being loaded at the docks there. Eastern and Northern manufacturers, it is stated, find it well adapted to their needs for the manufacture of paper, and are buying large quantities of it.

To Develop Coal Property.

A certificate of incorporation has been granted at Gadsden, Ala., to the Straight Mountain Coal Co., capitalized at $50,000, to develop coal lands located on Sand mountain, a short distance west of Gadsden. It is stated that openings have already been made on the property from which a good grade of both steam and domestic coal has been produced. Officers of the company are Messrs. R. T. Baugh, president; J. R. Boyd, vice-president, and H. J. Certain, secretary. The principal office will be at Huntsville and a branch office at Carlisle, on Sand mountain.

Coal Loading in New River Field.

Coal loading in the New River field for August aggregated 421,195 tons, an increase of 48,660 tons over the loading for July. Of 9194 cars shipped, 4128 were loaded for tidewater. Coke shipments amounted to 389 cars, loaded at the following points: Beechwood, 5; Stone Cliff, 4; Macdonald, 2; Turkey Knob, 6; Collins, 33; Harvey, 29; Fire Creek, 37; Ansted, 150; Rush Run, 36; Brooklyn, 11; Kaymoor, 76.

Increasing Shipments.

Bituminous coal shipments of the Baltimore & Ohio Railroad Co. for July amounted to 2,105,997 tons, an increase of 262,685 tons over the shipments for July, 1905. Coke shipments amounted to 466,909 tons, an increase of 104,273 tons over July, 1905. Norfolk & Western Railway shipments of coal for July aggregated 906,470 tons, an increase of 85,232 tons over those for July, 1905.

Mining Notes.

Messrs. C. B. Couch, Frank Cox, E. A. Reid and J. L. Dickinson, all of Charleston, W. Va., and E. A. Humphreys of Denver, Col., have incorporated the Four Cs Mining Co. of Charleston, with a capital stock of $50,000, to engage in mining, etc.

The Bessemer (Ala.) Coal, Land & Improvement Co., which operates coal mines in Bibb county, Alabama, and at Wind Rock, Tenn., has increased its capital stock by $250,000 and is reported as contemplating the expenditure of the greater part of this increase for the further development of its properties.

Electric Manufacturing & Power Co.

The MANUFACTURERS' RECORD has received authoritative advices regarding the plans of the Electric Manufacturing & Power Co. of Spartanburg, S. C., to which reference has been made recently. This company will build a water-power-electrical plant at Gaston Shoals, on the Broad river, near Gaffney, S. C., and distribute electricity to Gaffney, Spartanburg and other cities for lighting and power purposes. A dam of the spillway type will be constructed of concrete and large stone. The electric plant will have a capacity of 9700 horse-power, the power to be generated at 60 cycles, 2300 volts, three-phase, and stepped up to 33,000 volts by means of water-cooled transformers. The entire plant will be constructed by the Dravo Contracting Co. of Pittsburg, Pa., and the work is now in progress. Mr. J. E. Sirrine of Greenville, S. C., is the engineer in charge. The Electric Manufacturing & Power Co. increased its capital stock to $1,000,000 several months ago, when Pittsburg capitalists purchased control of the enterprise.

RAILROADS

WORK AT PARKERSBURG.

B. & O. Yard Improvements—New Buildings—Port Perry Report Denied.

The following official information describes the improvements now being made by the Baltimore & Ohio Railroad at Parkersburg, W. Va.:

"The yard capacity is being almost doubled by the construction of about two and one-half miles of new yard tracks and rearranging about two miles of the present tracks.

"These improvements also include the erection of a six-stall standard roundhouse 95 feet in depth, a standard 80-foot turntable and pit, an oilhouse 30x50 feet and a double ashpit 100 feet in length. The ashes will be removed by gantry crane with an automatic grab bucket. A coal tipple and sandhouse will be erected with coal capacity of 200 tons. There will be a machine shop adjoining the roundhouse, which will be built of brick and be 60x85 feet. Boilers and engines will be located at one end of this building and separated from the other part by a brick wall. These buildings are being erected by the Leonard-Martin Construction Co. of Chicago, Ill."

The railroad company also informs the MANUFACTURERS' RECORD "that there is nothing in the report to the effect that the Baltimore & Ohio has decided to build a new line from Port Perry to near Baltimore. This story likely originated from the revival of the old report that the B. & O. would use the old projected South Penn route from Hancock, Md., to Port Perry, Pa., in straightening, reducing the grade and shortening the line between Baltimore and Pittsburg. There is nothing being done on this matter at the present time; neither is anything being done in the direction of double-tracking the portion of the line between Cumberland and Fairmont, W. Va., that is now single track. Nearly all of it is now double-tracked from Cumberland to Grafton."

NEW ORLEANS TO CAIRO.

Two Companies Chartered to Build Important North and South Trunk Lines.

The New Orleans & Northern Midland Railroad Co., capital $6,000,000, has filed its charter in Louisiana to build a line from New Orleans northward into Mississippi. This is the line in which, as previously reported in the MANUFACTURERS' RECORD, Thomas Reber and W. A. S. Wheeler of Natchez, Miss., are interested, and it is said that it is a project for the Vanderbilt lines to reach New Orleans. The talk is that the new road will connect with the Mobile, Jackson & Kansas City Railroad in Mississippi, and that the two companies will extend the latter line from Middleton, Tenn., to cross the Ohio river at Cairo, Ill., and to finally connect with the Big Four road.

The officers and directors are: President, H. O. True, a prominent merchant of Memphis; first vice-president, Gus Lehman, Jr., of New Orleans; second vice-president, W. A. S. Wheeler of Natchez; general manager, Thomas Reber of Natchez; other directors, Edward Wisner, C. Q. Freeman and Charles Ferrior.

It is stated that Mr. Wisner is of the firm of Wisner & Dresser of New Orleans, who own about 3,000,000 acres of land in Louisiana, and that the proposed line will develop these tracts.

It is also stated that there is probably a connection between the two roads and the New Orleans, Natchez & Pacific Railroad Co., organized at Natchez, Miss., recently, the officers of the latter being A. B. Wheeler, New Orleans, president; W. J. Poitevant, New Orleans, first vice-president; R. F. Larned, Natchez, treasurer; C. E. Moritz, Natchez, secretary.

President Wheeler is reported as saying that his brother, W. A. S. Wheeler, and Thomas Reber are the active promoters of the road, which is to run from Natchez via Woodville and Clinton, Miss., to New Orleans. It is said that the survey has been made.

BOUGHT BY SOUTHERN.

Virginia & Southwestern Deal Closed. Importance of the Line.

The Virginia & Southwestern Railway, extending from Bristol, Tenn., to Inman, Va., and also from Bristol to Mountain City, Tenn., a total distance of about 128 miles, has been purchased by the Southern Railway, according to a press report from New York, which quotes a stockholder of the Virginia & Southwestern as confirming the recent rumor that such a deal had been made.

The Virginia & Southwestern was owned by the Virginia Iron, Coal & Coke Co., of which Henry K. McHarg is president, and it is said that the stock of the road, which was given as a bonus several years ago to the subscribers to $2,000,000 of first mortgage bonds on the line, was bought by the Southern at $200 per share, the deal being closed for the iron company by a committee composed of Oliver H. Payne, Grant B. Schley and Henry K. McHarg. As the bonds are now quoted at 114, this makes a value of $314 for the original subscription to the bonds.

The value of the Virginia & Southwestern to the Southern Railway is on account of the strength of its position as a coal road, giving it a foothold in the Virginia coal fields. It is also said to be backing the Holston River Railway, now under construction from Moccasin Gap, Va., on the Virginia & Southwestern, to Persia, Tenn., on the Southern Railway, besides building a line to reach the Toms Creek coal field. The Southern Railway has, it is stated, taken all of the stock, which will cost it $4,000,000, of which $1,000,000 was paid about three months ago, and the remainder will be paid in instalments. It is further stated that the gross earnings of the Virginia & Southwestern for the year ended June 30 last were $1,000,000 and the net earnings were about $400,000.

The officers of the Virginia & Southwestern are Henry K. McHarg, president, 40 Wall street, New York; John B. Newton, vice-president and general manager, and J. W. Cure, secretary and treasurer, Bristol, Tenn.-Va.

Besides Mr. McHarg, the directors of the Virginia Iron, Coal & Coke Co. are Grant B. Schley, George A. Crocker, Edward J. Berwind, Walter Ferguson and John B. Newton.

Starkville Street Railway.

The following information is furnished the MANUFACTURERS' RECORD by the Starkville (Miss.) Street Railway Co.:

"The organization of the Starkville Street Railway Co. cannot be legally completed until September 22, 1906. They expect to place immediate orders after this date for all construction materials and rolling stock as well as power-plant machinery. The company is financed locally and has secured charter and all franchises. The stock is $30,000, and the same has all been subscribed. We expect to be in operation before the Christmas holidays.

"The line will be about two and one-half miles in length when completed. We expect to use 56-pound T rail and overhead side-bracket trolley construction. The line will lie within the corporate limits of the city of Starkville and the limits of the Agricultural and Mechanical College grounds, as these corporations about join each other. The power will be secured from the college power plant, but the railway company will furnish its own machinery with the exception of boiler power and equipment.

"C. E. Ard, professor of electrical engineering at the college, has had full charge of the organization so far, and will perhaps be retained as engineer when the organization is completed, as well as purchasing agent. He is authorized by a majority of stockholders to secure all necessary prices in order that rapid placing of orders may follow organization."

Paroda Railroad Co.

Mr. P. R. Alderman of Alcolu, S. C., of the Alcolu Railroad Co., writes to the MANUFACTURERS' RECORD regarding the Paroda Railroad as follows:

"The Alcolu Railroad extends from Alcolu to Lynche's River, running in an eastern direction from Alcolu, a distance of 30 miles. The Paroda Railroad will start out at a point on the Alcolu Railroad about 10 miles southeast of the terminus of the Alcolu Railroad at Lynche's River and will extend in a somewhat south and southeastern direction to Lanes, S. C., a distance of about 30 miles from the starting point. At Lanes the Paroda road will connect with the Atlantic Coast Line and the Georgetown & Western railroads.

"The correct name of the new railroad company is Paroda Railroad Co. The officers and directors have not yet been elected. The charter has not been obtained, but will be obtained some time in October, and work will be commenced at once. The territory traversed by the road is well timbered and is also a fairly good agricultural community. No bids will be asked for, as the company itself will do the building."

Atlanta to New Orleans.

From New Orleans it is reported that the Atlanta, Birmingham & Atlantic Railway Co., which is now building its extension to Birmingham, proposes to continue its line from Birmingham to New Orleans. While this report is unconfirmed, there appears to be good reason for expecting that a new line will be built by some company from Atlanta to New Orleans, and there have been several reports concerning other extensions by the road named, one of which related to a line from Birmingham to Nashville. It is also interesting in this connection to note that the Atlanta & New Orleans Railway Co. was incorporated recently in Georgia to build from Atlanta to New Orleans, all the incorporators being residents of Atlanta. It has not yet appeared, however, that they are working for any existing road.

It has also been reported that the Atlanta, Birmingham & Atlantic would build to Pensacola, the capital stock having recently been increased by $8,000,000, making a total of $24,351,400. The bonds placed now amount to $8,000,000.

Talladega to Pelham and Bessemer.

Messrs. C. D. Smith & Co., general contractors, Birmingham, Ala., write the MANUFACTURERS' RECORD as follows:

"Our firm has just closed the contract with the Atlanta, Birmingham & Atlantic Railroad Co. from Talladega, Ala., to Pelham, Ala. This is an extension of the line that they are now building from Brunswick, Ga., to Birmingham, Ala. The firm of C. D. Smith & Co. and the Dalhoff Construction Co. have closed with the same railway company for the work from Pelham, Ala., to Bessemer, Ala.

"The railroad company is in doubt as to whether they will build into Birmingham or make traffic arrangements with another line. The territory which this line traverses is farming and mineral land. The chief engineer is Mr. Alex. Bonnyman, Empire Building, Atlanta, Ga. There is no new equipment that we know of to be bought for this line at present.

"We have sublet 50 miles of the 67. The work yet to be let consists of concrete, rock and earth work. The bridging has all been sublet."

Will Build an Interurban.

The Citizens' Railway & Light Co. of North Fort Worth and Arlington Heights recently organized at Fort Worth, Texas, with Messrs. Warren Bicknell of Cleveland, Ohio, president, and J. R. Harper, E. W. Christy and Carey B. Close of Toledo, Ohio; W. O. Allen of Fostoria, Ohio; Warren Bicknell of Cleveland, Sam Rosen, Geo. E. White and Geo. E. Montgomery of Fort Worth, Texas, directors, takes over the line of the Arlington Heights Traction Co. of six miles of railway and equipment, the North Fort Worth & Rosen Heights line of 12 miles of railway, also the Citizens' Light & Power Plant of this city. It is the intention of this company to build an interurban from Fort Worth to Mineral Wells, as they will have splendid terminal facilites in the city of Fort Worth.

Lehigh to Paris.

Mayor Ed H. McCuistion of Paris, Texas, informs the MANUFACTURERS' RECORD that it is practically settled now that the Oklahoma Central Railway Co. will build its line from Lehigh, in the Indian Territory, to Paris. The railroad company made a proposition to the Paris Board of Trade by which the Board was to furnish a right of way from Red river through the county and terminals in the city of Paris. Secretary Ragland has just about completed options on the right of way. The Oklahoma Central agrees to begin construction both at Lehigh and Paris. From the Paris end about 30 miles of road will be built, including the bridge across Red river, which it is estimated will cost about $350,000.

Thirty-Eight Miles Let.

The South & Western Railway Co. has awarded contracts to Walton, Witten & Graham of Graham, Va., for 13 miles; to Walton, Wilson, Oates & Co. of Knoxville, Tenn., for 11 miles; to Carpenter & Boxley of Clifton Forge, Va., for 10 miles, and to Purcell, Allen, Sheahan & Co. of Harrisonburg, Va., for 4 miles. The work is heavy with the exception of about eight miles. Mr. W. A. Doane, principal assistant engineer, informs the MANUFACTURERS' RECORD that other contracts may be let soon.

New Line Surveyed.

Mr. W. H. Wells, engineer of construction of Southern Railway Co., writes to the MANUFACTURERS' RECORD that surveys for a line between Dry Fork and Danville, Va., have been made, but no decision has been reached as to the building of same. The length of the new line will be 9.37 miles, the maximum curvature 2 degrees 30 minutes against 9 degrees 50 minutes on present line, and the maximum grade against tonnage .88 per cent., while it is 1.65 per cent. on present line.

Railroad Notes.

Mr. H. Fernstrom, chief engineer, writes from Norfolk, Va., to the MANUFACTURERS' RECORD that a survey is being made on the south side of the Kanawha river by the Deepwater Railway Co. in West Virginia, but that no action has been taken towards construction.

Mr. C. F. W. Felt, chief engineer of the Gulf, Colorado & Santa Fe Railway, writes from Galveston, Texas, to the MANUFACTURERS' RECORD that the company proposes to relay the present main line from Galveston to Houston, Texas, with 85-pound steel. The track now has 61 and 66 pound rails.

LUMBER

Construction Work Increasing.

From statistics of building construction obtained from representative cities throughout the South and Southwest the same general increase that has marked previous months is noted for August. The City Building Inspector of San Antonio, Texas, issued permits during the month to the number of 155, representing a valuation of $94,185. As compared with the valuation of buildings for which permits were issued in August, 1905, these figures indicate a slight increase. Building operations in the District of Columbia for August aggregated a value estimated at $1,093,425, as against a value of $988,451 for July. Among important buildings for which permits were secured during the month are two roundhouses for the Baltimore & Ohio Railroad Co. to cost $400,000 and a laboratory for the Carnegie Institute to cost $75,000. In Macon, Ga., there is much building activity, there being at present a number of prominent structures in course of erection. Among these is a building for the Government to cost about $350,000 and a compress and warehouses to be erected for the Atlantic Compress Co. at an approximate cost of $250,000, beside a large number of business and residence structures. Records in the office of the City Building Commissioner of Jacksonville, Fla., show that a total of 58 building permits were issued during August in that city. The valuation of buildings for which permits were issued in Memphis, Tenn., during the month is estimated at $324,353, an increase of $42,364 over the corresponding month last year. According to figures prepared in the office of the Building Inspector of Louisville, Ky., the total number of permits issued during the fiscal year ended September 1 was 2644, representing an aggregate value of $5,453,622. During the fiscal year ended September 1, 1905, a total of 2245 permits were issued, representing a value of $3,985,079, showing an increase during the past year of $1,468,543 over that of 1905. In Little Rock, Ark., the total valuation of permits issued in August is estimated at $42,107 for buildings and repairs inside the fire limits and $95,584 outside the fire limits. These figures represent an aggregate of 89 permits. Permits issued in Knoxville, Tenn., during August represent a valuation of $86,115. For the 12 months ended September 1 a total of 280 building permits were issued in Jackson, Miss., for the erection, repairing and remodeling of buildings, beside a large number for miscellaneous improvements. Among the more important buildings erected during the year are the plant for the Electric Light & Power Co., costing about $40,000; Capital National Bank building, costing $46,000; Jones-Kensington Company's building, costing $35,000, and the Gulf Compress Co.'s plant, costing $60,000. The official report of the Building Inspector of Birmingham, Ala., shows that permits were issued during August for buildings having an estimated valuation of $205,744.50. These figures represent a total of 71 permits.

Operations in Atlanta, Ga., have shown a marked increase during the first eight months of the present year, with indications that the aggregate value of improvements will reach nearly $5,000,000 before the year closes. For August 375 permits were issued, representing an estimated value of $399,444, an increase of $145,316 over August, 1905. From January 1 to September 1, inclusive, a total of 2530 permits were issued, with an estimated value of $3,729,996, showing an increase of $1,498,734 over the corresponding period last year. Referring to the activity everywhere in evidence in Atlanta, City Building Inspector F. A. Pittman is quoted as follows:

"In the cost of buildings erected this year we will surpass all previous records, not even barring 1904, when the Candler Building and the Terminal Station were erected. The remarkable part of it is that so far we have surpassed every month in the sum of money spent on building, the corresponding month of 1905 by over $100,000, and with the exception of the Louisville & Nashville Railroad freight sheds, there have been no buildings costing over $100,000. The increase is a steady growth of substantial buildings."

American Pine in Spain.

Consul-General Benj. Ridgely of Barcelona, in a report concerning the conditions of the yellow-pine market in Spain, writes:

"Spanish lumber importers are complaining bitterly not only of the increased price of American yellow pine, but of the scarcity of that product. They are also complaining that recent cargoes of yellow pine have been far below the standard in quality. It is stated and believed here that a lumber trust has been organized in the United States to put up prices of sawn timber for export, and it is difficult to convince importers that the rise in prices is only the natural result of supply and demand. Last year, they say, they could buy yellow pine f. o. b. in Florida ports for $11 per 1000 feet. This year the ruling price for the same product is $23, and the better quality is scarce at that. As a consequence, in spite of our new commercial arrangement with Spain, which lets American lumber in on the same basis as that of lumber coming from other most-favored nation countries, i. e., at 5 pesetas (96.5 cents) per cubic meter, instead of 6 pesetas ($1.16) as heretofore, there has been and will be a great falling off in imports from our country.

"The only American building lumber for which there has been or may be a considerable demand here is yellow pine, which is used for the interior of office buildings, chalets, villas and other structures where it is desired to preserve the natural color of the wood. This lumber began to find its way to Spanish markets some years ago when the red and white pine of the Baltic countries rose in price, and it is so well liked here that there would probably be a continuous and unlimited demand for it at prices ranging from $19 to $20 per 1000 cubic feet f. o. b. in American ports, but at present prices lumber importers say they must limit, if not virtually cease to import it. The red and white pine lumber of the Baltic, which is now very largely, if not almost exclusively, used here for building purposes, sells at $54 c. i. f. Barcelona per standard of 1980 feet. American yellow pine at present prices would cost here $69 per standard. These comparative figures are sufficient to explain why imports of lumber from the Baltic are increasing while those from the United States are falling off. I repeat, however, that, according to the information which I have been able to obtain on the subject, there would be a very large and continuous demand for our yellow pine at prices ranging from $19 to $20 per 1000 cubic feet f. o. b. in American ports. But this must be for sawn lumber, of what is known as 'merchantable' quality, and not for square-edged timber. It is unfortunate for our trade that two cargoes of very bad stuff were recently shipped to Valencia from Florida.

"It is claimed that the American exporters sold the lumber in this instance upon the assurance that it was of good merchantable quality, and were paid cash for the goods against shipping papers. Spain has virtually no lumber of her own. If we have yellow pine to sell, this is one place to sell it if the prices can be kept within bounds and the quality maintained."

Large Timber Development.

The MANUFACTURERS' RECORD is advised by Mr. W. S. F. Tatum of Hattiesburg, Miss., who recently purchased a tract of timber land in Perry and Lamar counties, Mississippi, that all arrangements have been made for handling the purchase without the assistance of outside capital, and by the deal he secures an estimated stumpage of 163,000,000 feet of yellow pine. The purchaser will develop the timber at once, and desires to place orders for the following equipment: Three miles of 56 or 60-pound steel rails, either new or relay, with splices, and three miles of 35 or 40-pound steel rails, either new or relay, with splices. Wire offers on any portion of the above equipment will be accepted if relay rail is guaranteed in good condition and immediate shipment guaranteed. Other equipment wanted comprises a twin engine, steam feed, 12 or 14 inch, to give carriage 70 feet travel; five-block carriage 40 feet long, in two sections, and heavy edger 48 inches wide. Plans and machinery complete for a single-band mill are also desired, the mill to be equipped with a carriage to cut timbers 65 feet long and space to be allowed in building for gang saw if it is desired to install one later.

Vulcanizing Lumber.

Announcement is made that a company has been organized in Savannah, Ga., and another is in process of organization in Jacksonville, Fla., each to have a capital stock of $100,000, for the purpose of treating lumber, ties, etc., by the Howard process of vulcanization, which, it is claimed, will materially prolong the life of the product. Capt. D. G. Purse of Savannah is interested in the enterprises, and is promoting their organization. According to claims made for the vulcanizing of wood, beside prolonging the life of the material it increases the tensile strength from 20 to 25 per cent. and the crushing weight from 30 to 33 per cent., at the same time reducing the weight by about one-fifth. In a comparison of railroad ties which have been treated by this process with untreated ties, it is claimed that the relative period of service is as 20 years to 5.

Pascagoula's Shipping.

Lumber shipments from the port of Pascagoula, Miss., embracing Moss Point, are said to be steadily increasing on account of improved deep-water facilities. The following vessels are reported as loading at W. Denny & Co.'s O'Leary & Wyatt mills on the Escatawpa river: Norwegian barks Baumen, with 650,000 feet of lumber; Signi, with 950,000; British bark Annie, with 1,195,000 feet; American brig Jennie Hulbert, with 350,000 feet, all for South America. The British steamship Onslow, 1716 tons, steamed out of Pascagoula river, after loading at the L. N. Dantzler Lumber Co.'s mills in Moss Point a part cargo of 1,100,000 feet of lumber. The Onslow is now completing in Horn Island anchorage a general cargo of square timber and boards aggregating 2,000,000 superficial feet.

Shipments from Orange.

Although handicapped by a car shortage which at one time was quite serious, a dispatch from Orange, Texas, states that the Miller-Link Lumber Co. made shipments during August amounting to 4,400,000 feet. It is stated that the cars furnished the company have a capacity of from 25,000 to 40,000 feet, and each car is loaded to its full capacity before going out.

Lumber Notes.

The Kirby Lumber Co. of Houston, Texas, is reported to have recently received an order from W. A. Powell & Co. for 10,000,000 feet of lumber for export.

The steamship Adoni is billed to take 2,500,000 feet of lumber to South America, loading nearly 2,000,000 feet of the cargo at Brunswick, Ga., and the remainder at Fernandina, Fla.

TEXTILES

The Summerville Cotton Mills.

The Summerville Cotton Mills of Summerville, Ga., has been organized for the purpose of establishing the cotton factory referred to last week. This company has a capital stock of $150,000 and its officers are: President, John D. Taylor; vice-president, E. W. Sturdivant; secretary, E. N. Martin. The directors are Messrs. W. H. Penn, A. S. Hamilton, J. Robt. Henderson, R. A. McWhorter, A. S. Hinton, J. C. Hutchins, T. M. Ballenger, G. W. Davenport of Chattanooga, Tenn., and Cornelius Terhune of Rome, Ga. The Lowell Machine Shops of Lowell, Mass., is now preparing plans and specifications for the plant, which is to have a capacity of 5000 spindles and 150 looms, although operations will probably begin with 4000 spindles and 120 looms in position, the product to be duck. Building construction contracts will be awarded about October 1. Mr. Ernest Montgomery will be superintendent of the mill.

Plans for Chatham Woolen Mill.

Last week the MANUFACTURERS' RECORD referred to the Chatham Manufacturing Co. of Elkin, N. C., as considering plans for the large woolen mill it will build at Winston-Salem, N. C. Since then the company has held a stockholders' meeting and announced that Messrs. Lockwood, Greene & Co. of Boston, Mass., will prepare the plans and specifications for the new plant. These plans are expected to be ready for contractors within 10 days, and contracts for construction will then be awarded. Officers of the Chatham Manufacturing Co. were elected as follows: President, H. G. Chatham; first vice-president, R. J. Reynolds; second vice-president, G. T. Roth; treasurer, R. M. Chatham, and secretary, Mason Lillard. They have increased capital stock from $50,000 to $350,000.

Wants to Buy Art Squares.

The Fenton-Bowers Furniture Co. of Roanoke, Va., wants to purchase art squares 12x15 feet of the pro-Brussels weave, all wool, or some other weave that is equally heavy and sometimes called a three-ply grain.

Textile Notes.

Reported that the Trenton (Tenn.) Cotton Mills will expend $35,000 for improvements and new machinery that will change the plant's product from cotton yarns to cloth.

The business men of Statesville, N. C., are planning the organization of a company to build a cotton mill, and will hold a meeting to plan the enterprise. The Commercial Club is interested.

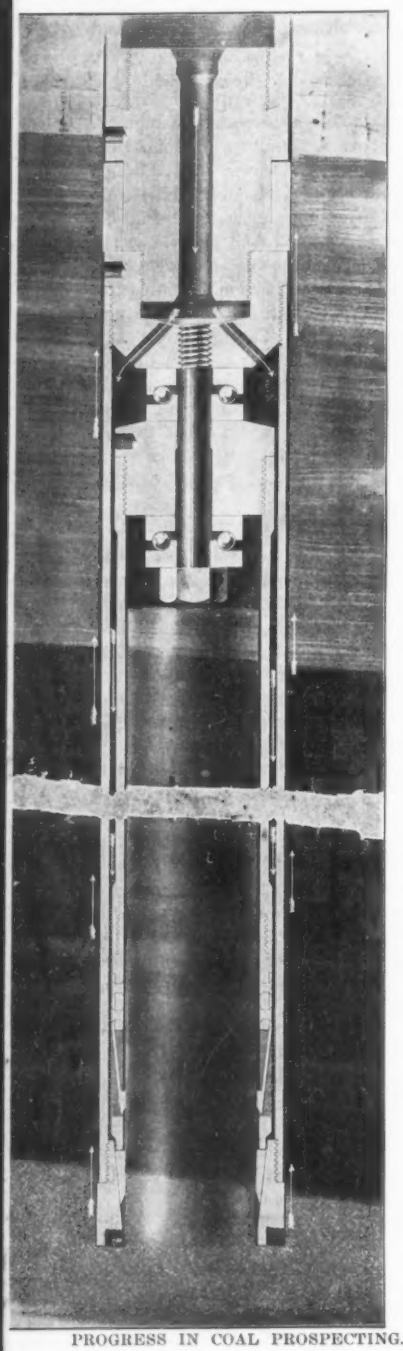
The Home-Mixture Guano Co. of Columbus, Ga., has completed the rebuilding of its acid plant, which was recently burned. The plant is modern in construction and has nine large acid chambers, giving it a capacity about three times that of the former one.

In the eight months of this year 36,662 tons of Peace River phosphate rock were shipped through the port of Punta Gorda, Fla.

MECHANICAL

Progress in Coal Prospecting.

The cost of working a given coal area is determined to a large extent by the character of the formation, and is affected by every variation in the pitch of the seam and the condition of the strata immediately overlying and underlying the coal. Profits are closely dependent on the kind and character of impurities existing in the coal. It is therefore apparent that the determination of the practical value of a coal area in advance of actual mining is a matter of the greatest importance and worthy of the use of the highest grade of appliances and engineering skill.



PROGRESS IN COAL PROSPECTING.

There are four commonly-known methods of prospecting coal lands, which show the same number of successive steps in the development of the art of obtaining exact knowledge of the commercial value of a given formation. In order of value they are as follows:

First, sinking of shafts or driving of slopes on the coal vein; second, drilling test holes with the churn or percussive drill; third, drilling core holes with chilled shot or saw-toothed bits; fourth, drilling with the diamond core drill, using the double-tube core barrel.

The first method has been found slow and prohibitive in cost.

The second is cheap and rapid, but records obtained are unreliable. The samples taken from holes drilled by this method consist of chopped-up particles representing the contents of the hole, the various strata of which are necessarily more or less intermingled.

The third method, that of drilling with chilled shot or saw-toothed bits, is an improvement over the second, but leaves much to be desired in the matter of drilling speed and condition of core.

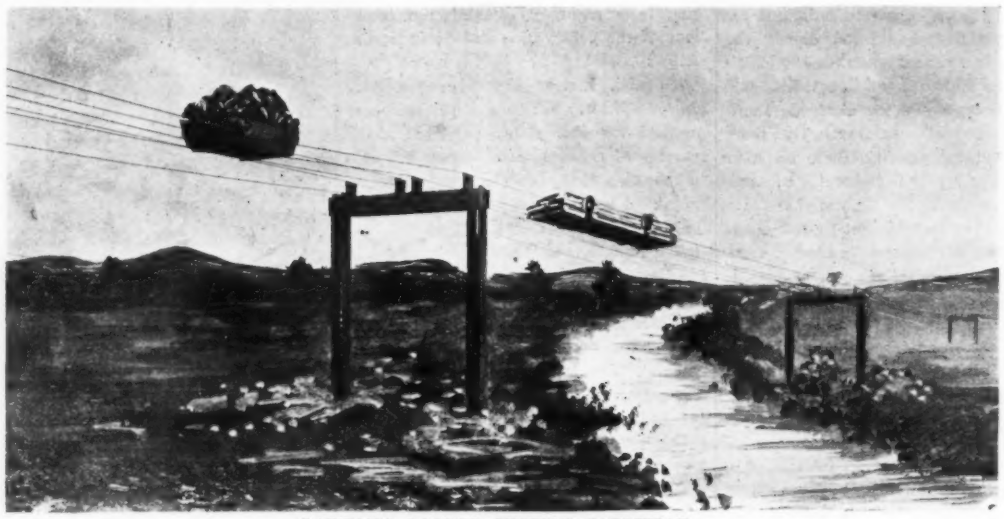
The necessity for obtaining the most perfect records possible is apparent when it is remembered that large amounts of capital must be expended in the purchase of lands, building of railroads, installation of mechanical equipment, driving workings and building of houses before a coal property can be put on a dividend-paying basis. It is claimed that mining engineers generally agree that the highest development obtained in this art is the diamond core drill, including the double-tube core barrel. The principle of this apparatus is: The drilling crown or bit is faced with black diamonds or carbon. This bit is placed at the end of a tube or core barrel, which is of peculiar construction. This core barrel consists of two tubes, an inner and an outer member, the inner one being suspended on especially-designed ball bearings to make it free of the rotation of the outer tube. The outer tube is made to closely fill the hole and rotates without vibration. Between the inner and outer tubes is a space through which water is forced, which emerges under the bit, carrying away the cuttings. Close to the bit an automatic device is placed which grasps the core when the core barrel is lifted, thus bringing it to the surface. The core barrel is connected to the drill on the surface by the required number of drill rods made of hollow steel tubing in exact 10-foot lengths, by means of which the depth of the hole at any given time is accurately measured. The bit, core barrel and rods are rotated by means of a suitable engine, and are fed downward by hydraulic pressure regulated by finely-graduated valves. The hoisting and lowering of the rods is accomplished by means of a derrick or tripod carrying a sheave wheel and a rope, which is wound up on the drum forming a part of the drilling machine. The entire apparatus is designed in strict accordance with engineering principles, and every detail of materials and construction in these machines receives the careful attention of the manufacturers.

The cores are two inches in diameter, a dimension fixed upon after extensive experience. The cores extracted, even in friable formations, are practically complete, showing only a minute loss from abrasion, and are a perfect record of the formation existing at the point drilled. They are placed in suitable cases and form a permanent record. Vertical sections of the core may be taken for analysis, as required, the remaining portions being preserved.

The method described is equally applicable to prospecting for other minerals.

In addition to the reliability of the records which they secure, diamond drills are also much more rapid than any other coring drill owing to the small diameter of the hole bored and the readiness with which the diamond bit penetrates all strata encountered.

An accompanying view illustrates the outfit and equipment needed for such work. It shows the Sullivan double-tube core barrel passing through a coal vein, the arrows indicating the course of the water. The Sullivan Machinery Co., Railway Exchange Building, Chicago, Ill., manufactures the equipment.



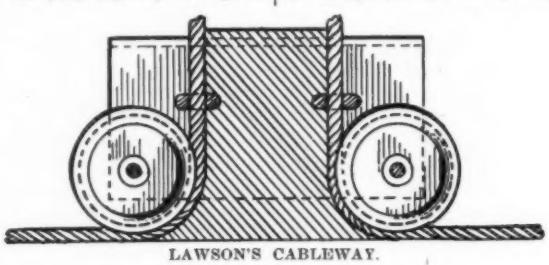
LAWSON'S LOOPED SECTION CABLEWAY.

Lawson's Looped Section Cableway.

Managers of industrial enterprises wherein cableways are required will be interested in the accompanying views of Lawson's looped section cableway. This cableway is a radical departure from existing methods of construction in that the load is carried above and between the supporting cables. These supporting cables are formed of looped sections, each of which is entirely independent of the other sections, but so constructed as to permit of the free and uninterrupted passage of the cars over the entire line. By means of these independent looped sections the supporting and carrying capacity of a given line is multiplied as many times as there are sections in such line, while the cost of construction and maintenance is claimed to be only about one-fourth the cost of the old-style swinging-bucket lines. This equipment is offered as a practical lumber-carrying cableway; also for ore and coal from mine to mill or tipple, rock and crushed stone, earth, sand and brick, and an unlimited number of other applications. It can be operated any distance over any kind of country.

The pulling cable is continuous on the same principle as surface cable cars. The looped sections form the track, which is claimed to be a great improvement over the single continuous cable, because the holding capacity on one of these loops is as great as the holding capacity of a three-mile line of single continuous cable. By the means of the looped section it is possible to have a car on each section if necessary. While tramway makers have had the idea to increase carrying capacity by increasing the size of the carrying cable, the Lawson idea is the opposite. A three-eighths and a one-half-inch cable is used. As the cars are going continuously and are only 200 to 400 feet apart, it is stated the equipment can deliver the output of a sawmill cutting 50,000 feet per day or deliver from a mine 200 tons of ore per day at a distance of five miles and at a very small cost. If one of the loops breaks it only stops the cars for a short time. Ten, 15 and 20 miles of cableway over any condition of country can be served with the double-looped cable, as the power station can be located in the middle of the proposed line and drive both ways. For instance, if there is a 10-mile line to construct the power station can be established at the five-mile point, and for a 20-mile line three power stations at a distance of five miles apart. The holding capacity of one of the Lawson loops is about 5000 pounds. However, not more than one-fifth of that amount is put on each car.

The Lawson looped section cableway is manufactured by Messrs. V. G. Richardson & Co., Exchange Building, Roanoke, Va.



LAWSON'S CABLEWAY.

Stanley-G. I. Arc Lamps.

An accompanying illustration presents a view of one of the G. I. types L 4 and L 14 arc lamps for 100 to 125 volts, double-current multiple service. L 4 lamp is wound at three and one-quarter amperes; L 14 lamp is wound adjustable for three and one-quarter to five amperes. All insulation except that of wire and the insulation on spool is of porcelain, glass, lava or mica. Every insulated part of every lamp must withstand 1500 volts alternating-current breakdown test before being allowed to leave the factory.

The resistance wire is of ample size and is wound on grooved porcelain bobbins. The resistance bobbins may be most conveniently removed and replaced.

A large band clamp is very readily moved to adjust the lamp, and when tightened insures permanent adjustment.

The canopy ring that conceals the resistance in the top of the lamp may be

readily disengaged from the lamp top merely by twisting it either to the right or to the left. The canopy may be then dropped down as shown, the resistance readjusted and the whole lamp interior inspected while the lamp is burning without disturbing the outer globe.

The magnet is wound with oil-enameled insulated wire, which is impervious to moisture and capable of withstanding very high temperature indefinitely without injury. The whole winding, including dash pot and plunger, may be expeditiously taken out of lamp.

The dash-pot plunger is self-lubricating and will not stick under any conditions. The dash-pot cup may be removed from the lamp by simply unscrewing it from the top of the spool, thereby exposing plunger for inspection or replacement.

The clutch is of the side-lift type, absolute in action and easily adjustable for "lift."

The clutch insulation is of lava, and may be easily replaced if necessary.

All connections are exposed to view and are absolutely accessible. They are insulated by means of glass beads. The upper carbon-holder connection is particularly desirable, being a direct flexible cable, always in sight, insuring a continuous circuit through the lamp except at the arc.

The switch is of the waterproof type, with blade inside the top of lamp. The switch handle is of solid steel rod, and may be hammered with impunity without danger of injury.

The trim is of the closed-base type, designed to accommodate G. I. No. 17 bulb.

The valve forms a chamber around the upper carbon and gives long life.

Standard L 4 and L 14 lamps are designed to take seven-sixteenths-inch carbons. The manufacturer states that an L 4 or L 14 lamp, which is only 15½ inches long and particularly adapted to low ceilings, burning at three and one-quarter amperes, and trimmed with 7¼x7-16-inch upper and 3¼x7-16-inch lower carbons, will burn for a period of from 80 to 90 hours.

The ball is light and neat, and may be conveniently manipulated with one hand.

The shell is of the cylinder type, readily removable by means of bayonet lock. The shell locks automatically when slipped into position.

The only difference between the indoor and outdoor types of this lamp is in the canopy ring around the top. For outdoor service this ring is made of solid sheet metal, and for indoor service of perforated sheet metal. Any indoor lamp may be utilized for outdoor service merely by changing the top canopy ring, and vice versa.

The standard globe holder will accommodate either an outer globe or a porcelain reflector.

The outer globe for this lamp is eight inches in diameter, spherical in shape, known as G. I. No. 45.

The inner bulb used with either the L 4 or L 14 type of lamp is known as No. 17.

The porcelain reflector for this lamp is 14 inches in diameter, known as G. I. No. 41.

The L 4 lamp is carried in stock, wound for three and one-quarter amperes, adjustable from 100 to 125 volts.

The L 14 lamp is adjustable for any current between three and one-quarter and five amperes at any line voltage from 100 to 125.

The Stanley-G. I. Electric Manufacturing Co. of Pittsfield, Mass., manufactures these lamps and will send detailed bulletins to inquirers.

STANLEY-G. I. ARC LAMPS (Types L 4 and L 14).

A Plant for Creosoting Ties.

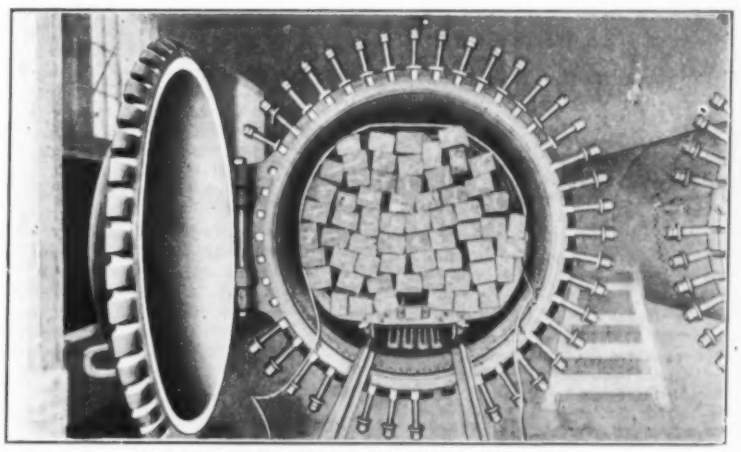
There has been installed recently by the Columbia Creosoting Co. of Shirley, Ind., a two-cylinder plant for impregnating railway ties. It is probable that this plant has a greater capacity for size and number of its retorts than any in the country. The retorts, tanks, pumps, piping, engine and generator were all furnished by the Allis-Chalmers Company of Milwaukee, Wis., after its plans made under the direction of C. B. Lowry, manager of the creosoting company. The plant consists of two retorts seven feet in diameter by 130 feet long, each closed on either end with a heavy solid cast-steel door bolted to a cast-steel flange — the retorts are capable of withstanding a pressure of 175 pounds to the square inch—two overhead charging tanks, one large storage tank, one unloading tank for tank cars, one cylindrical underground tank for emptying retorts, one 40-kilowatt Allis-Chalmers generator, steam-engine driven, switchboard, etc., two 100-horse-power boilers, electric locomotives, tie cars, etc., a complete equipment of pumps, piping, valves and fittings.

One of the features of value in saving time and enabling the operators to accurately keep track of oil used, etc., is the combination of an overhead charging tank and an underground receiving tank. When a retort is filled with ties and the doors closed and bolted it is charged with creosote from one of the overhead charging tanks through two eight-inch pipes, the quantity of creosote already in this tank having been previously noted. The retort is filled almost in the fraction of a minute, the oil flowing in by gravity. The moment the oil comes to rest in the overhead tank the quantity remaining in it is noted and the pressure pump started, forcing in oil until the desired penetration into the tie or timber is effected. The quantity of oil being forced into the timber is carefully noted as the level drops into the overhead tank, there being no other outlet for the oil in the tank excepting into the retort. When proper penetration has been accomplished the pressure pump is stopped and the surplus oil permitted to flow from the retort into the underground tank through two 10-inch pipes. The time required to accomplish this operation is as short as the time required to fill the retort, it also being done by gravity. From the underground tank the oil is pumped back as desired into the charging tank during the subsequent part of the operation. The retort is now subjected to a vacuum, and the excess of oil which has been forced into the ties is withdrawn down to the proper quantity. The vacuum is then destroyed and the retort emptied. If it is desired to get an exceptionally deep and quick penetration, this process is reversed, and the ties, immediately they are put into the retort, are subjected to a vacuum, followed by the immersion in oil. Only seasoned ties are treated in this plant, and the retorts are not arranged for steaming timber, this being considered injurious to it. Each retort is supplied with heated coils in the bottom between the rails, which keep the oil heated to the proper temperature when in the retort. The charging tanks and storage tank are all likewise provided with heating coils to prevent congealing of the creosote oil.

The Allis-Chalmers Company (and Fraser & Chalmers Company prior to the consolidation) has made a specialty of timber-preserving machinery since the commencement of the industry in this country. The Ayer & Lord plant at Carbondale, Ill., and the Texas Tie & Lumber Preserving Co.'s plant at Somerville, Texas, are supplied with Allis-Chalmers retorts. The Allis-Chalmers Company recently furnished five retorts for the large new creosoting plant being built by the Texas Tie & Lumber Preserving Co. at Somerville. The original retorts in the Texas Company's plant were furnished by the Fraser & Chalmers Company. The new cylinders are similar to those furnished the Columbia Creosoting Co., and are made to stand even greater pressure.

To illustrate the growth of the timber-preserving industry, it may be stated that the Allis-Chalmers Company has furnished nearly 50 of these retorts during the past few years, representing the most modern equipment in this line. The Santa Fe, Missouri, Kansas & Texas, Great Northtern, Chicago & Northwestern, Denver & Rio Grande and Chihuahua & Pacific railroads are all equipped.

At the St. Louis Exposition there was an experimental retort furnished by the Allis-Chalmers Company to the United States government for its use; also tanks for the Giusanni-process experimental plant at St. Louis.



A PLANT FOR CREOSOTING RAILWAY TIES.

Automatic Carriage for Typewriters.

The problem of an automatic carriage for the typewriter is one that has attracted the attention of writing-machine manufacturers and inventors interested in this modern device which the business world could scarcely do without. It is stated that Robert Eugene Turner of Norfolk, Va., has solved the problem and provided for an automatic return of the typewriter carriage, making it unnecessary for the operator to remove his hands from the keyboard during writing, a feature especially valuable to touch operators. The mechanism causes the carriage to return to the initial writing point when the end of a line is reached, also to return automatically from any point in the line by pressing a special key. Means for cushioning the impact of the carriage is amply provided. The invention can be used, it is stated, as an improvement to any standard make of writing machine, as it does not affect any part of the mechanism except the carriage motors or springs, which it replaces. Mr. Turner has obtained a patent on his invention, and expects in due time to see his invention adopted by all the progressive typewriter manufacturers.

Manager H. R. Jackson of the Charleston Freight Bureau, who has been active with State Immigration Commissioner E. J. Watson in the movement which has induced the North German Lloyd Steamship Co. to arrange for an experimental trip of one of its boats from Bremen by way of Baltimore to Charleston and Savannah next month, expects that a permanent line will be established between Charleston and Bremen, and the business interests of Charleston are planning to have ready a return cargo of grain, cotton and lumber against the arrival of the first vessel.

The State Association of Hardware Men of West Virginia has been organized with Messrs. F. R. Celland of Fairmont, president; C. V. Kyle of Wellsburg and C. P. Moore of Ravenswood, vice-presidents; J. H. Krupp of Morgantown, secretary; John H. Morgan of Morgantown, treasurer, and T. D. Frye of Keyser, C. S. Davis of Oakland, Md., and Henry C. Kalbitzer, members of the executive committee.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Bessemer, Ala. — Coal Mines. — Bessemer Coal, Land & Improvement Co. has increased capital stock to $250,000. It is stated that the greater portion of the additional capital will be expended for improvements to coal mines in Bibb county and at Wind Rock, Tenn., which the company operates.

Birmingham, Ala.—Postoffice Boxes and Fixtures, etc.—Postal Fixture Co. has incorporated with an authorized capital stock of $5000 to manufacture postoffice boxes and fixtures, bank and store fittings, etc.; T. B. Stallings, president; C. C. Nesmith, vice-president and treasurer, and J. H. Billingsley, secretary and manager.

Birmingham, Ala.—Veneer and Box Factory.—Birmingham Box & Veneer Co. has been incorporated with $25,000 capital stock for the manufacture of box, crate, drum and slack barrels, baskets and veneers. It has purchased the property of the M. C. Reynolds Lumber Co., covering five acres, with ample switch and track facilities, sawmill, planing-mill, dry-kiln and sheds for storage purposes, and the most improved equipment is being installed. Hervery R. Gill, recently of Columbus, Ohio, is president.

Birmingham, Ala.—Reservoir.—It is reported that plans are being developed by the engineers employed by the Birmingham Water-Works Co. for damming the Cahaba river to provide an artificial fresh-water basin 1000 acres in extent. The dam will be some 700 yards long, constructed of concrete and stone.

Gadsden, Ala.—Coal Mines.—Straight Mountain Coal Co. has been incorporated with an authorized capital stock of $50,000 to develop coal properties near Gadsden. R. T. Baugh is president; J. R. Boyd, vice-president, and H. J. Certain, secretary; main office, Huntsville, Ala.

Gadsden, Ala.—Iron and Steel Plants.—The directors of the Southern Steel Co. met in New York during the past week and formally completed their plans for acquiring the Lacey-Buek Iron Co. and the Chattanooga Iron & Coal Co., in accordance with details previously referred to by the Manufacturers' Record. Officers were elected as follows: President, Moses Taylor of New York; vice-presidents, E. T. Schuler of Gadsden and C. E. Buck of Chattanooga, Tenn.; treasurer, G. H. Schuler of Gadsden; chairman of board of directors, Charles P. Perin of New York; directors, Oakleigh Thorn and Robert R. Van Courtlandt of New York, John Brindley of Pittsburg, Courtlandt Van Camp of Indianapolis, Ind.; J. D. Lacey of Chattanooga and H. B. Schuler of Gadsden. In connection with this consolidation the Southern Steel Co.'s capital stock increases from $16,000,000 to $25,000,000, and any plans that may be determined for future betterments and extensions of the various mining and iron and steel manufacturing plants now owned will be announced at the proper time.

Mobile, Ala.—Bottling Works.—American Bottling Co. has been incorporated with $20,000 capital stock. John G. Gomilla is president; W. H. Beard, vice-president, and A. D. Howard, secretary-treasurer.

Montgomery, Ala.—Road Improvements.—Montgomery county will vote in November on a $275,000 bond issue for extending and completing the roads in the county. Address County Clerk.

Montgomery, Ala.—Railroad Repair Shops. Cook & Laurie Contracting Co. has contract to erect shops for the Atlanta & West Point Railroad and the Western Railway of Alabama, C. A. Wickersham, Atlanta, Ga., general manager. About $200,000 will be expended. (A complete reference was made to this improvement work in issue of August 16.)

Montgomery, Ala. — Cornmeal and Feed Mill.—West-Stegall Grain & Commission Co. has been incorporated with $25,000 capital stock to operate cornmeal and feed mill. C. W. Stegall is president; J. T. West, vice-president and general manager, and W. D. Stegall, secretary-treasurer.*

Scottsboro, Ala.—Cotton Gin, Grist Mill, Warehouse, etc.—Farmers' Warehouse & Storage Co. will operate cotton gin with a daily capacity of 40 bales, grist mill with a capacity of 200 bushels daily, and seed mill with a daily capacity of 400 bushels. Six buildings will be erected, 60x120 feet, 22x60 feet, 32x40 feet, 20x32 feet, 10x12 feet and 32x44 feet, respectively. It is also proposed to erect cotton warehouse 60x120 feet. T. S. Kirby is engineer in charge, and Oscar Ridley, architect. (Referred to last week.)

Selma, Ala.—Electric Plant.—Selma Lighting Co. is installing additional machinery for generating current, increasing the present capacity. The company has contract for furnishing the current to drive the machinery of the Union Iron Works referred to in this column.

Selma, Ala. — Iron Works. — Union Iron Works has decided to discard steam power for operating its plant and install a complete equipment of electrical machinery. It is proposed to install individual electric motors to each machine. Electricity will be obtained from the Selma Lighting Co.

Selma, Ala. — Slaughter-house. — City will shortly let contract for the erection of a union slaughter-house, for which bids were recently advertised. Address City Engineer.

Tuscaloosa, Ala.—Water-works.—City will probably issue bonds for the construction of water-works. Address Mayor Blair.

ARKANSAS.

Batesville, Ark.—Handle Factory.—Burton Arnold and Joe Kennedy are reported as considering the establishment of handle factory.

Craighead County, Ark.—Timber Development.—Reported that the Allison Land Co. of Decatur, Ind., has purchased at $196,000 5500 acres of timber land in Craighead county for development purposes.

Dryden, Ark.—Agricultural Implements.—Hiett Plow Co. has been organized by J. W. Hiett and others to manufacture the Hiett patent coulter plow, harrows, etc. Two buildings will be erected, one 40x60 feet and one 60x100 feet.*

Hunter, Ark.—Lumber Company.—Fordville Lumber Co. has been incorporated with $10,000 capital stock by S. S. Ford, C. E. Ford, E. C. Quinsberry and J. C. Mason.

Little Rock, Ark.—Land Improvement.—Incorporated: M. K. & T. Co. with $10,000 capital stock by J. F. Walls, W. W. Rains and G. O. Weems.

Osan, Ark.—Cotton Gin, Grist Mill, etc.—J. S. Conway will erect four 70-saw cotton gin and grist mill, as mentioned last week. Later it is proposed to add water-works and sawmill.

Texarkana, Ark.—Paving. — Arrangements have been completed for grading, graveling, curbing, guttering and draining one and one-eighth miles of streets, and bids for the work will be received until September 20 by Improvement District No. 6.*

FLORIDA.

De Funiak Springs, Fla. — Ice Plant, Bottling Works and Steam Lanudry.—Turner & Aymard contemplate installing a 6 to 10-ton ice plant, bottling works and steam laundry.*

Jacksonville, Fla.—Wood-vulcanizing Plant. A company is being organized with $100,000 capital stock by D. G. Purse of Savannah, Ga., and associates to establish plant for vulcanizing wood. Later it is proposed to organize a number of smaller companies throughout the State, which will be financed by the company now being organized.

Jacksonville, Fla.—Arrangements have been completed by the city for paving various streets, recently referred to, and bids for the work will be received until October 1. Philip Prioleau is city engineer.*

Milltown, Ga. — Water-power-Electrical Plant.—South Georgia Land & Industrial Co. has purchased the water-power, mineral springs and lands at the old Bank mill. Arrangements will be made at once for the development of the water-power to the extent of about 1000 horse-power, which will be transmitted by electricity for light and power purposes; also for operating an interurban car line from Milltown to Valdosta, Ga., a distance of 19 miles. Frank Lederle, Atlanta, Ga., has been engaged to make surveys, estimates, etc.

Mt. Pleasant, Fla.—Sawmill.—James A. Dezell has purchased 35,000 acres long-leaf pine timber and will build a saw and planing mill of 20,000 feet daily capacity. It is proposed to have mill in operation in about 90 days. Most of the machinery has been purchased.*

St. Petersburg, Fla. — Dredging. — Bayboro Land Co. has let contract to the West Coast Dredging Co., W. W. Boothe and N. T. Greenwood as contractors, to remove not less than 30,000 yards of earth from Booker's creek bayou and elsewhere in the Bayboro property, and remove the dredgings to such low places as designated by the property-owners, first filling in 3d street. The first work will be done on Booker's creek bayou, and when completed there will be a basin 700 feet wide and 2000 feet long, bulkheaded all around with a channel to deep water.

West Palm Beach, Fla.—Telephone System. West Palm Beach Telephone Co. has been incorporated with $25,000 capital stock. John E. Liddy is president; Marion E. Gruber, vice-president, and George L. Branning, secretary-treasurer.

GEORGIA.

Albany, Ga.—Ice Plant.—Reports state that Atlanta (Ga.) capitalists contemplate the erection of 100-ton ice plant. S. D. Pickett, president Albany Power Co., can probably give information.

Brunswick, Ga.—Ice Plant.—It is reported that a $100,000 ice plant will be erected, and J. R. Rumph is interested.

Brunswick, Ga. — Electric-power Plant. — Fore River Shipbuilding Co., Quincy, Mass., having entire contract for the construction of terminals for the Atlanta, Birmingham & Atlantic Railroad, referred to at various times in this department, will soon ask bids for the erection of electric-power plant. The power-house will be modern in its appointment and will have a chimney 150 feet high. Lumber will be loaded by a system of rolls operated by electricity. It is proposed to do all loading and unloading by electric power and equip coal chutes with electrical appliances.

Brunswick, Ga. — Lumber Mill. — Pulaski Manufacturing Co. has been incorporated with $10,000 capital stock by J. H. McCullough, M. N. McCullough and Millard Reese.

Brunswick, Ga.—Water-works and Electric-light Plant.—General Construction Co. of Atlanta, Ga., will begin at once the construction of water-works and electric-light plant for which franchise was recently secured.

Dalton, Ga.—Vehicles and Agricultural Implements.—George L. Lewis, B. A. Tyler and others have incorporated the Dalton Buggy Co. with $6000 capital stock.

Fitzgerald, Ga.—Sewerage System.—The issuance of bonds for the construction of sewerage system is under consideration. Address The Mayor.

Osierfield, Ga.—Saw and Shingle Mill.—Rebecca Lumber Co., reported incorporated September 6 under Fitzgerald, Ga., is operating sawmill with a daily capacity of 40,000 to 50,000 feet yellow-pine lumber and 20,000-capacity shingle mill. F. O. Whitehead is manager.

Sandersville, Ga.—Laundry.—H. A. Holliman will establish laundry.*

Savannah, Ga.—Sawmills.—Delph-McMillan Lumber Co., reported incorporated August 9 with $6000 capital stock, has completed organization with J. E. Tarver of Atlanta, Ga., president; John Moore of Augusta, Ga., vice-president; J. E. McMillan, secretary-treasurer, and J. G. Delph, general manager, both of Savannah.

Scotchville, Ga. — Naval Stores. — J. S. N. Davis, Jr., G. W. Brandon and W. E. Brooks have incorporated the Scotchville Naval Stores Co. with $6000 capital stock.

Summerville, Ga. — Cotton Mill.—Summerville Cotton Mills has been organized with capital stock of $150,000 to build the cotton factory referred to last week. Company will erect buildings large enough to hold 5000 spindles, etc., but probably only 4000 spindles and 120 looms will be installed to begin manufacturing, duck to be the product. Plans and specifications are being prepared by Lowell (Mass.) Machine Shops, and construction contracts will be let about October 1; John D. Taylor, president; E. W. Sturdivant, vice-president; E. N. Martin, secretary.

Waycross, Ga. — Gasoline Engines. — Hicks Gas Motor Co., manufacturer of gasoline engines, is reported as arranging to enlarge plant and construct a foundry and erect shop.

KENTUCKY.

Corbin, Ky.—Water-power-Electrical Plant. New York and Tennessee capitalists will arrange for the development of the water-power of the falls of the Cumberland river, 16 miles from Corbin. They secured the necessary options some months ago, and recently engineers have been making surveys 25 miles up stream and running lines to nearby cities. The plans will provide for the construction of a concrete dam 55 feet high and 550 feet long to develop 16,000 horse-power which will be transmitted by electricity to Louisville, Lexington and other points for power and lighting purposes. Four turbines of 4000 horse-power each will be installed. The names of the principals in this enterprise are not mentioned, but the surveys have been under the direction of Arthur Giesler, consulting engineer, New York city. The plans for developments and plant are reported to call for the expenditure of $2,000,000. In connection with the water-power-electrical project the capitalists are said to propose building a large pulp mill. Mr. Giesler telegraphs the Manufacturers' Record that no further announcement will be made at present.

Cornettsville, Ky.—Telephone System.—Cornettsville-Leatherwood Telephone Co. has increased capital stock to $7000. It is proposed to extend system 20 miles to Whitesburg, Ky., and 12 miles to connect with the Harlan line.

Hindman, Ky.—Telephone System.—Hindman-Carr Telephone Co. has been reorganized and the capital increased to $10,000. It is proposed to construct local lines to Colson, 12 miles distant, and Vest, 7 miles distant.

Hindman, Ky.—Street Improvements, etc.—W. C. T. U. Settlement School, Miss Mary Bigelow, principal, will expend $10,000 in street improvements to and from college building and installing water-works.

Letcher County, Ky.—Mineral Lands.—It is rumored that the Mineral Development Co. of Philadelphia, Pa., has purchased 600 acres of mineral land in Letcher county.

Louisville, Ky.—Sewerage System.—J. F. B. Breed, Room 503 Equitable Building (not Bruce, as mentioned last week), is engineer in charge of the construction of sewerage system, for which a $4,000,000 bond issue will be voted on in November. P. L. Atherton is chairman, and Charles P. Weaver (erroneously reported last week as Weiner), secretary Sewerage Commission; office, 505 Equitable Building.

Pikeville, Ky.—Street Improvements and Water-works.—City has voted the issuance of $20,000 of bonds for grading and improving streets and maintaining water-works. Address The Mayor.

Pikeville, Ky.—Telephone System.—Home Telephone Co. has increased capital stock to

$12,000 and will extend line 30 miles to Yeager and Elkhorn City, Ky. H. H. Starkey is general manager.

Providence, Ky.—Coal Mines.—It is rumored that T. L. Lee, representing an Alabama coal syndicate, has secured options on several hundred acres of coal land near Providence for development purposes.

Whitesburg, Ky. — Coal Mines. — Reported that M. O. Gray of Pittsburg, Pa., and R. T. Price of Toledo, Ohio, representing a Pittsburg corporation, are investigating coal lands in this vicinity with a view to securing an option on same for development purposes. About 12,000 acres are said to be wanted.

Winchester, Ky.—Sewerage System.—City will vote in November on a $40,000 bond issue for constructing sanitary sewer system. Address The Mayor.

LOUISIANA.

Covington, La.—Salt, Asphalt Mines, etc.—Chartered: Sulphur, Oil & Mineral Co., Ltd., with $50,000 capital stock, to mine salt, oil, asphalt and natural gas. W. A. Hod is president; Warren Thomas, vice-president, and C. D. McFarland, secretary-treasurer.

Homer, La.—Telephone System.—It is reported that a stock company will be formed for the installation of an automatic, instantaneous telephone system, and Dr. Munday of Keithville, La., is interested.

Lafayette, La.—Water-works and Electric-light Plant.—Spranley & Reed, New Orleans, La., have contract at $25,400 for extending and improving water-works and electric-light plant mentioned August 16. The contract calls for 8000 feet of water mains, 92 arc lights, new boilers, engines, dynamos and arc-light system.

Lake Arthur, La.—Ice and Water-works.—Lake Arthur Ice & Water Works Co. is being organized with $15,000 capital stock by R. P. Howell and associates.

Morgan City, La.—Ship Channel.—Reported that W. B. Reed, C. E., New Orleans, La., is making surveys for the proposed 20-foot channel to be constructed by the Atchafalaya Bay Ship Channel Co., and will also make soundings and specifications on which to base bids for dredging.

Napoleonville, La.—Electric-light Plant.—An engineer will be engaged at once to prepare plans and specifications for electric-light plant mentioned August 16. Address Mayor Gilbert.

Natchitoches, La.—Electric-light and Water Works.—Reports state that arrangements are being made for improvements to electric-light plant and water-works, including the installation of a 150-kilowatt alternating-current three-phase 2300-volt Crocker-Wheeler generator direct connected to a 220-horse-power Harrisburg engine. J. R. Carroll is superintendent.

New Orleans, La.—Broom Factory.—American Broom Manufacturing Co. has been incorporated with $10,000 capital stock. As soon as site is secured building will be erected and equipped for the manufacture of brooms, mops, brushes and articles of wooden and willow ware. Lewis A. Scherck is president; C. Gordon Bailey, vice-president and treasurer, and L. T. Lugazon, secretary.

Welsh, La.—Syrup Factory.—C. M. Field, it is reported, has completed arrangements for the establishment of syrup factory.

New Orleans, La. — Cotton Company. — Weld-Roberts Cotton Co. has been incorporated with $25,000 capital stock to deal in cotton and cotton products. Herbert Roberts is president; Robert C. Cairns, vice-president, and Joseph J. Skinner, secretary-treasurer.

New Orleans, La.—Crosstie Machine.—Incorporated: Standard Crosstie Machine Co. with $100,000 capital stock. Sol Wexler is president; Leo Fellman, vice-president, and D. B. Alexander, secretary-treasurer.

New Orleans, La.—Laundry.—Dixie Laundry Co. has been incorporated with $5000 capital stock. D. A. McDonald is president, and A. Baumgarten, secretary-treasurer.

New Orleans, La.—Cisterns, Sash, Doors, etc.—H. F. Lewis & Co., Ltd., have begun the erection of proposed factory building, which will be equipped for increasing capacity; building to be two stories, of frame, 200 feet square, covering a floor space of 50,000 feet; cost about $50,000. Wooden tanks, doors and sash are manufactured.

MARYLAND.

Baltimore, Md. — Grain-storage Bins. — H. W. Kapp, general agent Pennsylvania Railroad Co. in Baltimore, informs the Manufacturers' Record that the grain-storage bins recently referred to to be constructed at Canton will consist of 32 circular bins, 24 feet in diameter and 70 feet deep, with a total capacity of 1,000,000 bushels. The bins will be constructed throughout of reinforced concrete and will be connected to elevator by belt conveyors. A. C. Shand, chief engineer Pennsylvania Railroad Co., Broad Street Station, Philadelphia, Pa., will have charge of construction work. Bids on construction will be asked.

Baltimore, Md.—Patent Beer-cooler.—The E & S Combination Beer Cooler Co. has been incorporated with capital stock of $10,000 to manufacture patented beer-cooler by John J. Turner, Pierre G. Gaspari, Jr., 420 North Carrollton avenue; Frank D. Noel, 211 North Calvert street; Frederick A. Lucchesi, 2132 North Calvert street, and Louis McK. Kines.

Baltimore, Md.—Tin Novelties.—The Baltimore Specialty Co. has been incorporated with capital stock of $3000 to manufacture tin novelties by Henry C. Camper, Samuel Aaron, 103 East Church street; James A. Fechtig, Jesse H. Sheckles and George A. Finch.

Baltimore, Md.—Crude-petroleum Plant.—It is reported that the Ellis Company, Calvert Building, will purchase 12 acres of land in South Baltimore for the establishment of crude-petroleum plant.

Baltimore, Md.—Asphalt-products Plant.—The Ellis Company, Calvert Building, Fayette and St. Paul streets, has purchased 12 acres of land at Wagner's Point on Curtis bay and will establish plant for the manufacture of asphalt products for roofing and paving purposes. Large piers will be constructed, and buildings to be erected will be equipped with latest improved machinery.

Baltimore, Md.—Coal and Coke.—The Atlas Coal & Coke Co. has been incorporated with capital of $50,000 to deal in coal and coke by Thomas H. Woolford, 1406 William street; Eugene L. Norton, 2438 Maryland avenue; Fred V. R. Williams, all of Baltimore, Md.; Wm. J. Norton, New York, and Jacob France.

Cumberland, Md. — Gas Plant. — Western Maryland Gas Co. has been incorporated with $20,000 capital stock by Fleet M. Robey, Roderick Clary of Cumberland, Forman H. Schreiber of Frostburg, Md.; Justin D. Northrup of Charles Town, W. Va., and Mortimer L. Church of Rural Valley, Pa.

Greensboro, Md. — Bridge Construction. — Caroline County Commissioners will open bids September 25 for the construction of a reinforced concrete bridge over the Choptank river. William D. Uhler is road engineer; office of the commissioners, Denton, Md.*

Hagerstown, Md.—Water-works.—Washington County Water Co. has increased capital stock from $160,000 to $320,000. The company was mentioned July 19 as having purchased site on which to build reservoir; capacity to be 10,000,000 gallons and to cost $125,000. Engineer has not been engaged.

MISSISSIPPI.

Grenada, Miss. — Hardware. — Doak Hardware Co. has been incorporated with $20,000 capital stock by R. Doak, S. A. Lacock and others.

Hattiesburg, Miss. — Timber-land Developments.—W. S. F. Tatum and associates have become owners of lands reported to contain about 163,000,000 feet of yellow-pine stumpage, and they propose to fully develop the property. A single-band mill with carriage to cut timbers 65 feet long will be installed, and space will be allowed in building for a gang saw. Railway-construction materials, complete sawmill and other equipment will be wanted.*

Meadville, Miss. — Bridge Construction. — Franklin County Supervisors have authorized the issuance of $60,000 of bonds for building bridges over the various streams in the county. Address County Clerk.

Mossville, Miss. — Cotton Gin, etc.—Chartered: Mossville Gin Co., by K. C. Hall of Laurel, Miss., and others, to operate cotton gin and grist mill.

New Albany, Miss.—Stave Factory.—C. H. Wright, general manager Hiram Blow Stave Co., has purchased site on which to erect plant for the manufacture of tight barrel staves.

Ovett, Miss.—Lumber Mill.—Albert Howze, N. M. Cudabac and John H. Gary have incorporated the Howze-Cudabac Company with $50,000 capital stock.

Scranton, Miss.—Dredging.—Bowers Southern Dredging Co., Galveston, Texas, has contract at $75,000 for dredging a channel in the Pascagoula river in Eastern Mississippi six miles long, a portion to be 300 feet wide and the balance 150 feet wide.

Vicksburg, Miss.—Street Paving.—Southern Paving & Construction Co., Chattanooga, Tenn., has contract for paving Washington street with vitrified brick.

Waynesboro, Miss.—Ice Plant.—J. P. Wetherbee, Lock Box 106, contemplates installing a five ton compressor ice plant.*

Wiggins, Miss. — Land Improvement, Colonizing, etc.—Mississippi Interstate Colonizing Co. has been organized and charter obtained with $75,000 capital stock. It has purchased 10,000 acres of cut-over lands with the intention of colonizing with fruit, berry and vegetable growers, as nearly as possible with 40 acres to the family. S. D. Stuart, J. H. Little, both of Indiana; James R. Milner and Chas. E. Denton, both of Missouri, are charter members. The company is domiciled at Gulfport, Miss.

MISSOURI.

Joplin, Mo. — Foundry. — Central Foundry Co. is reported as contemplating the enlargement of plant.

Aurora, Mo.—Sewerage System.—People's Sewer Co., reported incorporated last week, will construct a sewer 3420 feet long. George Scholes is architect and engineer in charge.

Rich Hill, Mo.—Vehicle Works.—Wagner & Wiek have begun the construction of proposed addition 28x32 feet to vehicle works.

St. Louis, Mo.—Pipe-organ Works.—Incorporated: J. G. Pfeffer Pipe Organ Co. with $12,000 capital stock by John R. Heimueller and Amalie Heimueller.

St. Louis, Mo.—Steel Foundry.—Scullin-Gallagher Iron & Steel Co., it is reported, is building addition to its No. 2 foundry, to be used as molding-room; to be of modern steel construction. Two five-ton electric traveling cranes will be installed.

St. Louis, Mo.—Grain Company.—Slack-Fuller Grain Co. has been incorporated with $10,000 capital stock by Berckman L. Slack, Henry G. Craft and James M. Fuller.

St. Louis, Mo.—Foundry.—Liberty Foundry Co., reported incorporated September 6, will manufacture castings, having a daily capacity of 15 tons. A concrete building 60x80 feet will be erected; W. P. Botts, 6519 Michigan avenue, architect. Thos. Mellow is president, and C. A. Stevens, secretary; office, 6626 Alabama avenue.

St. Louis, Mo. — Pottery. — Incorporated: Ozark Pottering Co. with $50,000 capital stock by Robert P. Bringhirst, Clarence A. Howard and Arthur T. Morey.

St. Louis, Mo.—Wrecking and Supply Company.—St. Louis Wrecking & Supply Co. has been incorporated with $10,000 capital stock by G. Bennet, D. Cohen, J. M. Sutherland and others.

St. Louis, Mo.—Chemical Works.—Incorporated: Cotto-Waxo Company, with $2000 capital stock, by John A. Gourley, Jacob C. Punch and Montague Punch.

Tipton, Mo.—Lead and Zinc Mills and Refinery.—Lead & Zinc Development Co. has been incorporated with $75,000 capital stock for the establishment of plant to smelt, part, refine, manufacture lead and zinc in all commercial and medical forms; incorporators, F. R. Dutton, Alexander Silverman, Philip Silverman, 147 East State street, Trenton, N. J.

NORTH CAROLINA.

Asheville, N. C. — Granite Quarry. — J. C. Pritchard and J. M. Gudger, Jr., have begun the operation of quarry, developing a vein of granite recently discovered.

Belhaven, N. C. — Incorporated: Clark-Smith Company, with $25,000 capital stock, by C. P. Aycock, E. W. Clark and others.

Charlotte, N. C.—Hardware Company.—R. A. Dunn, H. W. Belk, J. H. Wearn, J. C. McNeely, R. L. Erwin and others have organized hardware company with $50,000 capital stock to take over and continue the business of the Charlotte Hardware Co.

Charlotte, N. C.—Hollow-block Machines.—J. C. Herring Manufacturing Co. has been incorporated by J. C. Herring and others to introduce the Herring hollow-block machine.

Charlotte, N. C. — Hardware.—Weddington Hardware Co. has been incorporated with an authorized capital stock of $150,000 by L. Seawell and others to continue an established business.

Goldsboro, N. C.—Lumber Manufacturing.—Edgerton & Johnson Company has incorporated with $125,000 capital stock to deal in timber lands, manufacture lumber, etc.; incorporators, G. W. Edgerton, J. W. Johnson, H. M. Malpass and F. C. Overman.

Hoffman, N. C.—Overall Factory, Trouser and Shirt Factory.—G. C. Baldwin contemplates establishing overall, trouser and shirt factory.*

Kannapalis (not a postoffice), N. C.—Cotton Mill.—Reported that James W. Cannon and associates of Concord, N. C., will build two cotton mills, one for manufacturing yarns and one for manufacturing cloth, at a cost of $2,000,000. It was announced in May that the Cannon Manufacturing Co., of which Mr. Cannon is president, had voted an increase of capital stock for the purpose of building another mill, to have 30,000 spindles and 400 looms, and it is probably identical with the Kannapalis project. Mr. Cannon advises the Manufacturers' Record that he has no statement to make at present.

Montreat, N. C.—Electric-light and Water Works, etc.—Mountain Retreat Association, Rev. Dr. J. R. Howerton, Charlotte, N. C., president, will develop 4000 acres of land. It proposes to lay off and macadamize roads and driveways, install water-works and electric-light plant, construct two lakes and build hotel of 125 rooms; estimated cost of improvements, $150,000. A $25,000 auditorium with a seating capacity of 5000 persons is also proposed. Contract for planning the improvements has been let to Lockwood, Greene & Co., Boston, Mass.

Morganton, N. C.—Drug Company.—I. M. Taylor and others have incorporated the Burke Drug Co. with $25,000 capital stock.

Morganton, N. C.—Handle Factory.—Chartered: Morganton Handle Co., with $50,000 capital stock, by J. N. Payne and others.

Nashville, N. C. — Farm Supplies. — F. B. Cooper, G. L. Jones and others have incorporated the Jones-Cooper Company with $25,000 capital stock.

Raeford, N. C.—Drug Company.—Johnson-Thomas Drug Co. has been incorporated with an authorized capital stock of $30,000 by J. W. Johnson, J. C. Thomas, G. W. Brown and others.

Roanoke Rapids, N. C.—Cotton Mill.—Reported that Roanoke Rapids Power Co. will call a meeting of stockholders to organize $500,000 stock company and have plans and specifications prepared for the erection of cotton mill. (This project referred to in June, 1906, and September, 1905.)

Selma, N. C.—Knitting Mill.—Selma Knitting Mills, previously reported, has completed plant and begun operations with 20 knitting machines and complementary apparatus. It proposes increasing from 20 to 80 or 100 machines and adding dyeing and finishing machinery in the furture. M. C. Winston is president.

Statesville, N. C.—Cotton Mill.—The Commercial Club is interested in plans for organizing a company to build a cotton mill.

Wilmington, N. C.—Cotton Mill.—Wilmington Cotton Mills will rebuild its dyehouse destroyed by fire at a loss of $15,000. The mill proper was but slightly damaged.

Wilmington, N. C.—Sawmill and Dry-kiln. J. T. West, Petersburg, Va., it is reported, has begun the erection of proposed sawmill and dry-kiln on Sturgeon's creek, three and one-half miles from Wilmington; capacity, 18,000 feet daily.

Wilmington, N. C. — Gas Plant. — Consolidated Railways, Light & Power Co. is reported as to make improvements doubling its present capacity. It is stated that another steel reservoir will be built at a cost of $24,000 to have a capacity of 150,000 cubic feet.

Wilmington, N. C.—Crematory.—City contemplates the construction of a crematory of 30 tons capacity, and correspondence is solicited by W. E. Yopp, chairman committee on sanitation.*

Wilson, N. C.—Telephone System.—Carolina Telephone & Telegraph Co. will install a new telephone system (central energy plant) at a cost of $25,000. A new franchise has been obtained from the city.

Winston-Salem, N. C.—Cold-storage and Ice Plant.—Carolina Cold Storage & Ice Co. has been chartered with $125,000 capital stock by Frank S. Vernary and Clement Manly to operate cold-storage and ice plant of 25 tons daily capacity. Building has been secured.

Winston-Salem, N. C.—Woolen Mill.—The Chatham Manufacturing Co. of Elkin, N. C., has engaged Lockwood, Greene & Co., 93 Federal street, Boston, Mass., to prepare plans and specifications for proposed woolen mill to be located at Winston as recently reported. Mill building will probably be two stories high, 100x250 feet, to contain complete sets of woolen-blanket machinery—cards, mules, dyeing apparatus, washing plant, etc. A steam plant will be installed—return-tubular boilers and 200-horse-power cross-compound Corliss engine. Bids for the machinery will be opened within 30 days. Complete plant will cost about $150,000. H. G. Chatham is president.

SOUTH CAROLINA.

Abbeville, S. C.—Hardware Company.—Incorporated: Abbeville Hardware Co. with $11,000 capital stock by J. C. Lanham and others.

Anderson, S. C.—Cotton Gin.—McLees Ginning Co. is being organized by Dr. W. H. Pepper, Adolphus Bolt, Robert Morris and J. W. Wright with $2500 capital stock.

Anderson, S. C.—Vehicles, Fertilizers, etc.—Fretwell Hanks Company has increased capital stock from $20,000 to $50,000.

Gaffney, S. C.—Gold Mines.—L. U. Campbell and associates have purchased the Flint Hill gold mine on Broad river and are completing arrangements for beginning operations about October 1. It is proposed to install a hot-air-blast smelting system having a capacity of 150 tons in 24 hours. Contract for equipment has been let.

Gaffney, S. C. — Water-power-Electrical Plant.—Electric Manufacturing & Power Co. of Spartanburg, S. C., will develop the water-power of the Broad river at Gaston shoals and transmit by electricity to Gaffney, Spartanburg and other towns. It is proposed to build plant with a capacity of 9700 electrical horse-power net output; power to be generated at 60 cycles, 2300 volts, three phase, and stepped up to 33,000 volts by means of water-cooled transformers; dam to be of concrete and large stone, and will be of the spillway type. Entire plant will be constructed by the Dravo Contracting Co. of Pittsburg, Pa. J. E. Sirrine, Greenville, S. C., is chief engineer. (Reference has been made to this enterprise at various times in this department under Spartanburg, S. C., as the Spartanburg Electric Power Co.)

Greenville, S. C.—Water Company.—Verner Springs Water Co. has been incorporated with $24,000 capital stock. C. C. Gond is president; C. C. Hindman, vice-president, and H. P. Beam, secretary-treasurer.

Madison, S. C.—Lumber Company.—Chartered: Madison Lumber Co. with $5000 capital stock. P. P. Sullivan is president and treasurer, and J. S. Rice, manager. Plant is being operated with a weekly capacity of 50,000 feet rough lumber and 25,000 feet finished lumber.

Sumter, S. C.—Lumber Company.—Scott Lumber Co. has been incorporated with Alex. Scott, president; F. S. Speese, secretary, and George Burchill, treasurer.

Union, S. C.—Iron Foundry.—Incorporated: Union Iron Foundry, with $75,000 capital stock, by J. M. Moss and M. W. McNease.

Walhalla, S. C.—Bottling Works.—J. R. Cobb is reported to establish bottling works.

TENNESSEE.

Chattanooga, Tenn.—Tunnel.—It is reported that the construction of a tunnel 800 feet long under Missionary ridge is being considered by Hamilton county; to be wide enough to admit of a sidewalk, wagonway and street-car tracks. Plans for its construction, etc., are said to be under consideration. Seth M. Walker, County Judge, or County Engineer Dodd can give information.

Chattanooga, Tenn. — Tobacco Factory. — Bowers-Henry Tobacco Works has been chartered with $1000 capital by Lloyd Bowers, David S. Henry, Paul B. Fite, Maurice Crenshaw and R. T. Wright.

Knoxville, Tenn.—Trunk Factory.—Southern Trunk Co. has secured 30 acres of land at Vestal on which to erect factory building, concrete warehouse, 10 dwellings for employes and other residences. Contract has been let to Gustave Schroder for two-story factory building 50x150 feet.

Memphis, Tenn. — Telephone System. — St. Francis Levee Board is considering the construction of a telephone line along the levee from Memphis to Walnut Bend and the purchase of a gasoline engine and pumps to be stationed at Butler, where water is interfering with the work of the contractors. H. N. Pharr is chief engineer.

Nashville, Tenn.—Telephone and Electric Conduits, etc.—G. M. Gest of New York and Cincinnati, Ohio, who has the contract for constructing conduits for the Cumberland Telephone & Telegraph Co. and the Nashville Railway & Light Co., is completing arrangements for beginning work.

Nashville, Tenn. — Grain Elevator. — The grain elevator being erected by Illinois Central Railroad and Southern Railway, for which contract was mentioned May 3 as let to Geo. B. Swift & Co., Chicago, Ill., is nearing completion; building of heavy timber and steel superstructure on solid concrete foundation, built on solid rock; all bins have steel floors, and modern sprinkling system will be installed; storage capacity 500,000 bushels. A large area of ground has been purchased near plant for construction of tracks to accommodate 5000 freight cars. Compressed-air sweepers will be provided on every floor to draw refuse into pipes and deposit it in furnaces. A system of waterworks is being installed, 10-inch main from independent pumping station on the river supplying water for steam and other purposes as well as fire; pumping plant to have a capacity of 1,000,000 gallons daily. About $500,000 will be expended on the elevator; Charles Rouzer, manager; offices, First National Bank Building.

Renfro (not a postoffice), Tenn. — Coal Mines and Coke Ovens.—Wilson Coal Co., Inc., reported August 9 as having leased for development the Renfro mines, will increase the capacity from 200 tons daily to 500 tons and over. The property comprises about 1000 acres of ground. It is proposed to install about 200 coke ovens during the present fall. About $250,000 will be invested. Charles E. Keyes is constructing engineer and manager at the mines; main office, 910 Postoffice Square Building, Boston, Mass.

Trenton, Tenn. — Cotton Mill. — Reported that Trenton Cotton Mills will expend $35,000 for new machinery to be installed for the purpose of changing the plant's product from yarns to cloth.

TEXAS.

Boyd, Texas — Cotton Gin. — A. J. Mann, Henry Jackson and A. L. Campbell have incorporated the Farmers' Gin Co. with $7500 capital stock.

Bryan, Texas—Cottonseed-oil Mill.—Bryan Cotton Oil Co., reported reorganized last week to rebuild cottonseed-oil mill destroyed by fire, will also build new seedhouses, hull-houses and install new machinery throughout. All pressroom machinery, linters and separating machinery has been purchased, but shafting, pulleys and electric equipment is yet to be bought. P. S. Grogan of Hearne, Texas, is president; B. D. Cash of Bryan, Texas, vice-president and manager, and R. C. Allen of Hearne, Texas, secretary-treasurer.*

Bryan, Texas—Ice Plant.—Bryan Ice, Storage & Coal Co. is reported to enlarge plant, increasing capacity from 15 tons to 75 tons daily.

Dallas, Texas—Bag Factory and Warehouse. Alex. Watson has contract for the erection of five-story factory building and 10-story warehouse for the Fulton Bag & Cotton Co., Atlanta, Ga., previously mentioned; Lang & Witchell, architects.

Dallas, Texas—Road Building.—R. Hunnicut has contract for the construction of the Orphans' Home tap road and Lander Bros. for the construction of the New Home tap to the East pike.

Dallas, Texas — Tank Works, etc. — Harry Bros. Co., reported last week as to build additional factory, will erect brick building 50x150 feet with metal roof. About $25,000 will be invested. Architect has not been selected. Eaves, troughs, conductor pipes, ridge roll, well casing, pressed elbows, etc., are manufactured; capacity 20,000 feet daily. Contracts have been awarded for machinery, and it is contemplated to have the plant in operation by December 1.

Dallas, Texas — Manufacturing.—American Mill & Mnufacturers' Sales Co. has been incorporated with $1000 capital stock by W. G. Hatcher, M. R. Ferguson and R. B. Straythorn.

Dallas, Texas—Publishing.—Dallas Tribune Publishing Co. has been incorporated with $20,000 capital stock for the publication of a daily paper; incorporators, Jackson P. Jones, Albert S. Joyce, Bertram S. Yale, Estes Ritchie and associates.

De Kalb, Texas—Oil and Gas Wells.—De Kalb Oil & Gas Co. has been incorporated with $10,000 capital stock by A. G. Crump, S. W. Capron, W. C. Read, C. C. Crump, Jr., and associates.

Falfurrias, Texas — Telephone System. — Frank S. Rachal, John S. Donahoe, B. Temple Henry and others have incorporated the Falfurrias Telephone Co. with $5000 capital stock.

Galveston, Texas—Street Paving.—Kelso & Vautrin, 205 Tremont street, have contract at $27,000 for paving 10 blocks of street with vitrified brick.

Hawkins, Texas — Sawmill. — Shields & Weeks will operate sawmill with a daily capacity of 25,000 feet of yellow-pine lumber. R. P. Hughes is engineer in charge.*

Houston, Texas—Lumber Company.—West Lumber Co. has increased capital stock from $200,000 to $400,000.

Houston, Texas — Land Improvement. — Courtlandt Improvement Co., reported incorporated August 16, has purchased at $61,000 15½ acres of land adjoining Westmoreland, which will be developed as residence section. It is proposed to lay out in 30 lots, each to contain one-quarter of a block. Through the center a 30-foot boulevard paved throughout will be run, and two narrow streets will stretch along the outer limits of the property its entire length. Sewerage, gas, electric lights, water, etc., will be installed, and five-foot walks provided around each lot.

Huntsville, Texas—Sawmill.—Incorporated: Dallas & Trinity River Mill Co., with $10,000 capital stock, by E. E. Markham of Huntsville and M. E. Taylor of Jacksonville, Texas.

Liberty Hill, Texas—Cotton Gin.—J. L. Myers, E. N. Seward, J. W. Perry and others have incorporated the Liberty Hill Co-operative Gin Co. with $6000 capital stock.

Mexia, Texas—Cotton Gins, Grist Mills, etc. Chartered: Mexia Farmers' Union Stockholders' Association, with $10,000 capital stock, by Wiley Sims, J. P. Yelldell, G. W. Dean and others.

Mineola, Texas — Cotton Compress. — Herman Loeb, W. B. Wakeman, G. A. Bodenheim and others have incorporated the Loeb Compress Co. with $30,000 capital stock.

Nacogdoches, Texas — Hardware. — Chartered: Cason, Monk & Co., with $75,000 capital stock, by D. K. Cason, John Schmidt, R. C. Monk, J. E. Gaston and Lee Gaston.

Nacogdoches, Texas — Cotton Compress. — Nacogdoches Compress Co. has been incorporated with $30,000 capital stock by Herman Loeb, John Schmidt and Roland Jones.

Nacogdoches, Texas—Showcases, Millwork, etc.—Nacogdoches Showcase & Manufacturing Co. will erect a frame addition, 80x120 feet, to plant. Geo. O. Cook is architect. Showcases, millwork, drug and store furniture and fixtures, mantels and other such work are manufactured. No machinery will be purchased.

Paris, Texas—Terminals, Bridge, etc.—Oklahoma Central Railway Co., which is arranging to build a railroad from Lehigh, I. T., to Paris, will construct terminals at Paris and a bridge across the Red river at a cost of $350,000.

Sabinal, Texas — Water and Ice Plants. — Sabinal Water & Ice Co., reported incorporated August 9 with $20,000 capital stock, will operate water and ice plants. Equipment has been purchased. Ross Kennedy is president; A. J. Denham, secretary, and Thomas Adams, manager.

San Antonio, Texas—Coal Mines and Coke Ovens.—Sauceda Coal & Coke Co. has been incorporated with $50,000 capital stock by Otto Wahrmund, Andres Garza Galan and James L. Slayden.

Sherman, Texas — Petroleum Company. — Medill Petroleum Co. has been incorporated with $10,000 capital stock by R. L. Heflin, George Chapman, N. B. Birge, W. N. Finson and J. A. Holt.

Texarkana, Texas—Grain Company.—W. C. Josey, J. A. Hurley and A. V. Denny have incorporated the Josey Grain Co. with $10,000 capital stock.

Trinity, Texas — Lumber Company. — J. M. Thompson Lumber Co. has increased capital stock from $300,000 to $400,000.

Trinity, Texas—Cotton Gin and Grist Mill. J. F. Standley of Groveton, Texas, will rebuild cotton gin and grist mill reported burned last week. A building 30x100 feet will be erected. Ben Lane is engineer in charge, and W. L. Standley, architect; daily capacity 30 bales of cotton.*

Uvalde, Texas — Drug Company. — Barnhill Drug Co. has been incorporated with $12,000 capital stock by D. W. Barnhill, A. R. Bowman and T. C. Bowman.

Weir, Texas—Telephone System.—Incorporated: Walberg-Weir Telephone Co., with $2000 capital stock, by Frank Doering, A. M. Nalley, J. G. Wilcox, J. W. Long and others.

Wilburton, Texas—Oil Wells.—White Oak Oil Co. has been incorporated with $50,000 capital stock by Lowell A. Smith, D. C. Jones, J. C. Naylor, E. N. Requa, A. H. Beck and associates.

VIRGINIA.

Abingdon, Va.—Laundry.—Abingdon Steam Laundry, reported incorporated last week with $5000 capital stock, will operate laundry with a capacity of $175 to $200 worth weekly. A one-story building 30x70 feet will be erected.

Bayard, Va. — Stock Farm.—Incorporated: Shenandoah Stock Farm, with Edward B. Jacobs of Bayard, president and treasurer; R. B. Bayly, vice-president, and C. W. Forsyth, secretary, both of Front Royal, Va.

Chase City, Va.—Sewerage System, Waterworks and Gas Plant.—City will let franchise for construction of sewerage system, water-works and gas plant, and bids are invited. Address The Mayor.

Chase City, Va.—Street Paving.—Contract will be let October 1 for laying brick sidewalk 2200 feet long and four feet wide; J. W. Swift, A. J. Yancey and T. E. Roberts, committee.*

Eastville, Va.—Stave Factory.—Salisbury Barrel & Stave Co. has begun the erection of proposed stave factory. E. L. Disharoon is manager.

Edinburg, Va. — Water-works. — Arrangements have been completed for constructing gravity system of water-works, previously mentioned, and bids will be received until October 2; J. D. Lemmon, Mayor; W. A. Wrenn, chairman committee.*

Farmville, Va.—Street Paving.—Ford & Co. have contract for grading and paving High street, recently mentioned.

Hampton, Va. — Street Improvements. — City will arrange for improving various streets. Address Mayor Jones.

Lynchburg, Va.—Steel Plant.—It is reported that the establishment of plant for the manufacture of all kinds of structural steel is being considered, and James H. Wynkoop of New York, N. Y., is interested.

Lynchburg, Va.—Electric-light Plant.—Bids will shortly be asked for equipment for a $50,000 electric-light plant for the city, for which plans were reported July 26 as being prepared by Lamar Lyndon of New York, N. Y. H. L. Shaner is city engineer.

Manassas, Va.—Street Paving, Waterworks and Electric-light Plant.—The date for opening bids for macadamizing streets, constructing water-works and electric-light plant, mentioned August 16, has been postponed from September 19 to October 10. O. E. Newman is chairman of the construction committee.*

Norfolk, Va. — Drug Company. — Incorporated: Dodson Remedy Co., with Melancthon I. Dodson, president; Melancthon A. Dodson, vice-president, and Birdie A. Dodson, secretary-treasurer, all of Portsmouth, Va.

Norfolk, Va.—Mineral Springs.—White Oak Mineral Springs Co. has been chartered with G. W. Bratten, president, and Simon Salomonsky, vice-president; capital stock $25,000.

Norfolk, Va.—Sanitary Company.—Norfolk Sanitary Co. has been incorporated with $15,000 authorized capital stock. G. F. Rosselet is president; M. H. Rosselet, secretary, and H. A. Johnston, treasurer.

Norfolk, Va. — Industrial.—Chartered: Industrial Corporation, with T. Marshall Bellamy, president, and Edmund S. Ruffin, secretary-treasurer; authorized capital stock $10,000.

Parksley, Va. — Publishing. — Chartered: Parksley Publishing Co., with H. Thomas Mason, president; capital stock $10,000.

Portsmouth, Va.—Amusement Company.—Chartered: American Amusement Corporation with $25,000 authorized capital stock. J. C. Curling is president; L. Privett, vice-president, and H. A. V. Parker, secretary-treasurer.

Radford, Va.—Supplies.—West End Supply Co. has been incorporated with $5000 capital stock. James Zoll is president; James Zoll, Jr., vice-president, both of Radford, and Samuel J. Shanklin, Snowville, Va., secretary-treasurer.

Richmond, Va.—Mineral Springs.—Healing Springs Co. has been incorporated with $10,000 capital stock. Decatur Axtell is president.

Richmond, Va.—Tobacco Redryer and Warehouse.—E. K. Vietor, P. O. Box 555, reported last week as to erect a tobacco factory, will build tobacco redryer and warehouse. The main building will be 76x185 feet and the warehouse will have a floor space of 10,000 square feet; one-story high; cost of buildings, about $10,000; cost of equipments, about $9000; capacity 7000 to 8000 hogsheads of bright tobacco and 2500 to 3000 hogsheads of dark tobacco, but does not expect to put up as much tobacco as this; electric-lighting fixtures to be used. An 80-horse-power steam plant will be installed; practically all machinery purchased, but roofing will be needed, and offers for lumber will be considered. Buildings will be erected by R. D. Walker of Manchester, Va. Mr. Vietor expressly wishes it stated that there is absolutely no truth in the recent report that he has a contract to furnish tobacco to the Austrian government.*

Roanoke, Va.—Laundry.—Crystal Springs Laundry Co. has been incorporated with an authorized capital stock of $10,000. P. Maclay Brown of Crossmore, N. C., is president; J. T. Howell, vice-president; D. W. Howell, secretary, and L. H. Weld, treasurer, all of Roanoke.

Rocky Mount, Va.—Aerial Transit.—Chartered: Franklin Aerial Transit Co. with $25,000 capital stock. J. Taylor Thompson is president, and W. C. Lawson of Rural Retreat, Va., vice-president.

WEST VIRGINIA.

Charleston, W. Va. — Mining. — Chartered: The 4 C's Mining Co., with $50,000 capital stock, by C. B. Couch, Frank Cox, E. A. Reid, J. L. Dickinson and others.

Charleston, W. Va.—Boiler and Foundry Works.—G. T. Thayer, O. A. Thayer, J. A. Thayer, E. T. Crawford and J. E. Crawford have incorporated the Acme Machine Works with $50,000 capital stock.

Charleston, W. Va.—Coal Mines.—Lilly-Hume Smokeless Coal Co. has been incorporated with $50,000 capital stock for the development of coal properties at Blue Jay.

Dola, W. Va.—Brick and Tile Works.—Girard Development Co. has been incor-

porated with $10,000 capital stock by A. J. Michael, D. D. Robinson of Dola, and L. W. Pratt of Wallace, W. Va.

Elkins, W. Va.—Public Improvements.—The $60,000 bond issue reported August 16 to be voted for extending water-works and sewerage, extending and bettering the sanitary condition and constructing crematory has been defeated. George Henry is clerk.

Huntington, W. Va.—Natural-gas Mains.—Cincinnati Natural Gas Co. has been incorporated with $4,000,000 capital stock by E. B. Enslow, R. M. Baker, Harry Simms, S. H. Moore and R. S. Douthat.

Moundsville, W. Va.—Coal Mines.—The Bituminous Coal Co. of America, reported incorporated June 21 with $350,000 capital stock, has leased the coal underlying 1172.45 acres of land in Marshall county for development. It is proposed to have an annual capacity of 1500 tons. W. G. Smith, formerly general manager of the Glen Easton Coal & Coke Co. of Moundsville and Pittsburg, Pa., is vice-president of the company.

Mt. Hope, W. Va.—Amusement Hall.—T. H. Snyder and associates have incorporated Citizens' Amusement Co. with $5000 capital stock.

Welch, W. Va.—Steam Laundry.—A stock company is being organized for the establishment of steam laundry to have a capacity of $200 worth a week. J. R. Greenwalt is interested.*

INDIAN TERRITORY.

Ada, I. T.—Water-works and Sewerage System.—City will consider plans and specifications October 9 for the construction of water-works and sewerage system. A $40,000 bond issue will be voted for this purpose. J. P. Wood is Mayor.*

Bartlesville, I. T.—Street Paving.—City will issue $25,000 of bonds for paving various streets. Jay H. Mullen is City Recorder.

Tulsa, I. T. — Ore-smelting Plant. — Tulsa Fuel & Manufacturing Co. has been incorporated for the establishment of plant covering 60 acres for smelting ores. G. C. Stebbins is interested.

OKLAHOMA TERRITORY.

Hollis, O. T.—Townsite.—J. E. Jones, W. C. Pendergraft, W. L. Hollis, W. B. Groves and others have incorporated the Hollis Townsite Co. with $20,000 capital stock.

Kingfisher, O. T.—Grain Company.—Chartered: Worl Grain Co. with $5000 capital stock by Earl M. Worl, A. Hielman and Lizzie B. Worl.

Lamont, O. T.—Oil and Gas Wells.—Lamont Oil & Gas Co. has been incorporated with $20,000 capital stock by M. J. Courtney, O. J. Bradfield, A. C. Thompson, August Settergreen, E. E. Gillis and others.

Cashion, O. T.—Cotton Gin.—Farmers' Co-operative Union Gin & Mill Co., reported incorporated September 6, will operate cotton gin with a capacity of 20 bales per 10 hours. A building 22x45 feet will be erected.

Peckham, O. T.—Telephone System.—J. A. Echternach, James Q. Loutham, A. A. Sherbon, P. T. Wather and associates have incorporated the Peckham Central Mutual Telephone Co. with $1000 capital stock.

Sickles, O. T.—Cotton Gin and Grist Mill.—Sickle Gin & Mill Co. has been incorporated with $30,000 capital stock by C. F. Romang, W. D. Vance, J. C. Tate, J. L. Fuller and others.

Weatherford, O. T.—Mill and Elevator.—Chartered: Citizens' Independent Mill & Elevator Co. with $30,000 capital stock by I. H. G. Hulme, W. H. Stone, J. T. Bradley, J. H. Kendall and others.

BURNED.

Anaqua, Texas.—T. P. Marberry's cotton gin; loss $2500.

Anderson, S. C.—Charleston & Western Carolina Railroad Co.'s freight depot; loss $15,000. J. R. Kenly, Wilmington, N. C., is general manager.

Anniston, Ala. — Woodstock Cotton Mills' warehouse; loss $30,000.

Beallsville, Md.—Charles C. Griffith's barn; loss $6000.

Emerson, Ga.—Grist mill owned by G. B. Holder, Jake C. Moore and Dr. Hamby of Atlanta, Ga.; loss $10,000.

Jackson, Tenn.—S. A. Mitchell's laundry; loss $7000.

Kendalia, Texas.—Joe Woods' cotton gin and grist mill; loss $2500.

Knoxville, Tenn.—Borches & Co.'s wholesale grocery house; loss $80,000.

Lenoir, N. C.—Builders' Supply Co.'s plant; loss $15,000; Coffey Wagon Co.'s plant damaged $1500.

Obion, Tenn.—Obion Mill & Elevator Co.'s grain elevator; loss $12,000.

Orangeburg, S. C.—Jennings & Smoak's cotton gin.

Meridian, Miss.—Leo Lutz's cold-storage plant, sausage factory and slaughter-house; loss $4500.

Newlin, La.—W. G. Strange's sawmill; loss $15,000.

Salyersville, Ky.—J. F. Atkeson's saw, planing, grist and flour mill; loss $5000.

Sumter, S. C.—Sumter Lumber Co.'s planing mill.

Wilmington, N. C.—Wilmington Cotton Mills' dyehouse; loss $15,000.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Abilene, Texas — Warehouse. — Chartered: Farmers' Warehouse Association, with $3500 capital stock, by W. A. McKee, J. P. Daniel, H. S. Allison, J. W. Childers and others.

Amory, Miss.—School Building.—City is arranging for the erection of $20,000 brick school building for which bonds have been issued. Address The Mayor.

Asheville, N. C.—Business and Office Building.—Edward S. Caldwell of New York, N. Y., has purchased through LaBare, Moal & Chiles site for a four-story business and office building; to be constructed of reinforced concrete, finished with brick, and cost $18,000. R. S. Smith has been commissioned to prepare the plans.

Atlanta, Ga.—Business Building.—J. A. Apperson has contract at $11,000 to erect proposed three-story business building for Geo. C. Drummond; ordinary construction.

Atlanta, Ga.—Library Building.—Bids are invited for the erection of a Carnegie library building on the campus of the Georgia School of Technology; brick with stone trimmings; wood-joist construction; gravel roof. Plans may be seen at the office of Morgan & Dillon, architects, 707 Prudential Building.

Baltimore, Md.—Warehouse.—A. C. Meyer & Co., 661 West Baltimore street, will erect warehouse at 118 West Lombard street on site, which is 28x80 feet.

Baltimore, Md.—Store Building.—Guido A. Vincenti, 422 Light street, has purchased lot at northwest corner Light and Perry streets and will erect store building on the site, which is 57x70 feet.

Baltimore, Md. — Service Building. — The United Railways & Electric Co., C. O. Vandevanter, chief engineer, Continental Building, Baltimore and Calvert streets, has awarded contract to Willis & Mason, 324 West Biddle street, for the construction of service building at 1617 and 1619 Light street; two stories, 28x72 feet; brick with stone trimmings; galvanized-iron cornice; tin roof; fire doors; copper skylight; metal lockers; electric wiring and fixtures; sanitary plumbing; steam-heating system; Simonson & Pietsch, architects, American Building, Baltimore and South streets.

Baltimore, Md.—Apartment-house.—John S. Fischer, 10 East Read street, has awarded contract to Willard E. Harn, 109 Clay street, for the reconstruction of three-story dwelling at 9 East Biddle street into an apartment-house. Sanitary plumbing, electric wiring and fixtures and steam-heating system will be installed.

Baltimore, Md.—Hospital.—Dr. Lawrence Hickman, 106 North High street, will erect veterinary hospital on High street near Lexington street; two stories, 30x136 feet; brick with stone trimmings; galvanized-iron cornice; steel rolling doors; electric wiring and fixtures; sanitary plumbing. M. C. Davis, 5 Hopkins place; John Cowan, 106 West Madison street; Frederick Decker & Son, 1209 East Biddle street, and J. H. Miller, 110 Dover street, are estimating on construction.

Baltimore, Md. — Warehouse. — Hoffman Allen has awarded contract to J. H. Wilder, 110 Dover street, for the construction of warehouse at 123 South street; three stories, 30x76 feet; brick with stone trimmings; steel beams; slag roof; fire doors and shutters; elevator; H. J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Hotel.—Charles E. Burrows, proprietor National Hotel, Calvert and Franklin streets, has awarded contract to Frederick Wright Company, National Marine Bank Building, Gay and Water streets, for the remodeling of hotel building.

Baltimore, Md.—Hospital.—The Johns Hopkins Hospital, Henry M. Hurd, superintendent, Broadway and Monument street, is considering the erection of new building for children's ward. It is reported that it will be three stories high, 204 feet frontage, with two wings each 117 feet deep, and that the improvement will cost about $250,000.

Baltimore, Md.—Studio.—Hans Schuler, 322 West Saratoga street, has awarded contract to John Cowan, 106 West Madison street, for the construction of one-story brick studio 24x46 feet on Lafayette avenue near Charles street, to cost about $4000; Howard Sill, architect, Keyser Building, Calvert and German streets.

Baltimore, Md.—Warehouse.—R. F. Welsh & Bro., 813 Sharp street, have purchased lots at 928 and 930 Leadenhall street and will erect two-story warehouse on the site, which is 40x155 feet.

Baltimore, Md.—Warehouse.—John J. and Charles W. Hurst, Calvert Building, Fayette and St. Paul streets, have awarded contract to Frederick Wright Company, National Marine Bank Building, Gay and Water streets, for the construction of three-story brick warehouse 25x60 feet at 613 Water street, to cost about $5000.

Baltimore, Md.—Dwellings.—Geo. A. Cook, builder, 435 East 25th street, will erect 24 dwellings on Calvert street between 27th and 28th streets; three stories, 18x68 feet; brick with marble trimmings; tin roof; galvanized-iron cornices; electric wiring and fixtures; sanitary plumbing; hot-water-heating systems; cost about $100,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Barboursville, Ky. — College Buildings. — Board of Education of the Methodist Church is arranging for the erection of $30,000 administration building and $20,000 dormitory at Union College.

Bartlesville, I. T.—Office Building.—Geo. C. Priestly will erect a three-story office building 75x100 feet.

Bartlesville, I. T. — Church.—Presbyterian congregation is having plans prepared for a $10,000 edifice. Address The Pastor.

Bartlesville, I. T.—Store and Office Building.—Wm. Johnstone, F. M. Overlees and H. W. Pemberton are having plans prepared for a three-story brick store and office building 50x100 feet.

Berkley, Va.—Store and Flat Building.—Mrs. O. M. Etheridge contemplates the erection of three-story brick store and flat building, 30x110 feet, to cost about $9000.

Birmingham, Ala. — Church Hall. — C. W. Brown has contract for the erection of Pilgrim Church hall; two stories; brick construction; cost $10,000.

Birmingham, Ala. — Warehouse. — Birmingham Warehouse & Transfer Co. has secured permit for the erection of proposed two-story brick building to cost $10,000.

Blooming Grove, Texas—Cotton Warehouse. Blooming Grove Cotton & Produce Warehouse Co. has been incorporated with $2500 capital stock by Joel H. Haden, I. N. Wilkinson and W. K. Green.

Brookneal, Va. — School Building. — The erection of a $6000 high-school building is being considered. Address Town Clerk.

Chattanooga, Tenn.—Amusement Building. Plans by Bearden & Foreman have been adopted for proposed amusement building to be known as the Hippodrome; 100x210 feet; upper story to be used as skating rink with a floor space of 85x195 feet and seats to accommodate 1000 spectators. One section of the floor 10 feet wide and 195 feet long will be arranged for beginners, being equipped with an overhead trolley. The lower or basement floor will be subdivided into eight apartments, each 22x85 feet, with a 10-foot walkway around the entire floor. Pool tables, bowling alley, indoor tennis court, etc., will be located on this floor. T. S. Galloway of St. Louis, Mo., is the promoter.

Chattanooga, Tenn. — Apartment-house.—R. H. Williams will erect an addition to apartment-house of concrete and brick to cost $7500.

Clarendon, Ark. — Cotton Warehouse. — Farmers' Union of Monroe county will erect brick warehouse with a storage capacity of 4000 bales of cotton.

Clarksville, Tenn. — Warehouse. — W. A. Chambers & Co. have let contract for the erection of proposed $10,000 storage warehouse.

Collins, Miss.—Courthouse.—Plans by W. S. Stubbs, Jackson, Miss., have been adopted for proposed $45,000 courthouse to be erected in Covington county.

Columbus, Miss.—School Building.—John S. McLanahan has contract at $15,935 for the erection of school building in East Columbus; previously mentioned.

Corinth, Miss.—Hotel.—Mark T. Bynum will add 26-room addition to the Hotel Waldron and install steam heat.

Crockett, Texas—Building.—Bids will be received until September 18 at the office of the county judge for the erection of a two-story fireproof record building, according to plans and specifications on file at the office of county judge, also at office of L. S. Green, architect, Houston, Texas. Certified check for 5 per cent. of amount of bid made payable to Judge Porter Newman must accompany each bid. Usual rights reserved.

Cuthbert, Ga.—Freight Terminals.—Georgia, Florida & Alabama Railway, it is reported, has begun improvements to building recently purchased for freight terminals. John Pasco, Bainbridge, Ga., is chief engineer.

Dallas, Texas — Telephone Exchange. — Southwestern Telegraph & Telephone Co. will erect two-story building, 50x60 feet, of fireproof construction, to cost $12,000. Equipment will be installed for a 2000-subscriber line at a cost of approximately $30,000. F. W. Yensen is engineer in charge. Architect has not been engaged.

Dawson Springs, Ky.—Hotel.—R. H. Brown of Madisonville, Ky., has purchased site on which to erect a 100-room hotel.

Edwards, Miss.—Bank and Office Building. R. E. Ledbetter has contract for building mentioned last week to be erected by the Bank of Edwards; 40x50 feet; brick with stone front; fireproof construction; gas fixtures; cost $7500.

Ellaville, Ga. — Bank Building. — Bank of Southwestern Georgia, Americus, Ga., will erect two-story building, 24x50 feet, of brick, stone or concrete, as mentioned last week. Electric burglar alarms will be installed.

Ensley, Ala. — Telephone Exchange. — Contract has been let for building reported August 16 to be erected by the Southern Bell Telephone & Telegraph Co.; to be of brick, 30x75 feet. About $10,000 will be expended.

Excelsior Springs, Mo.—Hotel.—I. I. Ringolsky, New York Life Building, Kansas City, Mo., and M. A. Isaacs of New York, N. Y., have purchased site of the Elms Hotel, on which it is stated a $200,000 hotel will be erected.

Fitzgerald, Ga.—School Buildings.—City is considering issuing bonds for the erection of school buildings. Address The Mayor.

Fort Smith, Ark.—Office Building.—Atkinson Improvement Co. has been organized with W. J. Echols, president; B. P. Atkinson, vice-president, and J. S. Miller, secretary-treasurer; capital stock $150,000. Arrangements will be made at once for the erection of proposed six-story office building.

Fort Worth, Texas—Telephone Exchange.—Fort Worth Telephone Co. is reported to erect a three-story addition to building, giving a capacity for handling 6000 telephones.

Gadsden, Ala.—Livery Stable.—W. T. Christopher has contract to erect Sullivan & Bramlett's proposed livery stable; two stories, 100x250 feet; brick and stone.

Galveston, Texas — Station. — George B. Stowe is preparing plans for immigrant station to be erected on the Wharf Company's property, and will submit estimates of cost.

Gastonia, N. C.—Store and Office Building. John T. Love is having plans prepared by Hook & Rogers, Charlotte, N. C., for a two-story building 55x102 feet; mill construction; steam heat; electric fixtures; cost $25,000.

Greenville, S. C.—Church.—Second Presbyterian congregation has purchased site 177½x150 feet for the erection of edifice. E. P. Davis, D.D., is pastor.

Gulfport, Miss.—Theater.—D. J. Haire has contract to erect proposed theater for the Gulfport Opera House Co.; 135 feet long; seating capacity 1200.

Hattiesburg, Miss.—Church.—Plans by Barber & Kluttz, Knoxville, Tenn., will soon be ready for bids for edifice mentioned last week to be erected by Main Street M. E. Church South; one story, 75x140 feet; brick with marble base and trimmings; Sunday-school room in rear; low-pressure steam-heating plant; electric and gas fixtures. W. S. F. Tatum is chairman of building committee.

Hickory, N. C. — Dormitory. — Killian & Whitener have contract for the erection of $12,000 dormitory for Lenoir College, for which Wheeler, Runge & Dickey, Charlotte, N. C., were mentioned July 12 as preparing plans.

High Point, N. C.—Store and Flat Building.—Baker, Smith & Co. have contract to erect store and flat building for J. P. Redding, for which Hook & Rogers, Charlotte, N. C., were mentioned July 21 as preparing plans; three stories, 70x90 feet; ordinary construction; steam heat; electric fixtures; four dumbwaiters; cost $25,000.

Hindman, Ky.—Business and Office Building.—Duke & Duke will erect $12,000 business and office block. Address Dr. J. W. Duke.

Homer, La.—Bank Building.—Bank of Claiborne, recently organized with P. Loewenberg, president, will erect building.

Hopkinsville, Ky.—Office Building.—Forbes Manufacturing Co. has purchased site, 60x165 feet, on which to erect two-story office building of brick and reinforced concrete.

Houston, Texas—Business and Flat Building.—Geiseke Bros. are completing arrangements for the erection of proposed $12,000 business and flat building.

Houston, Texas—School Building.—W. E. Woodruff has contract at $30,055 for the erection of the Brackenbridge school building. J. W. Thiel has contract at $3321 for the plumbing, heating and fixtures, and J. Rudersdorf for the cement work at $2025.

Huntington, W. Va.—Church.—A. F. Withrow Company has contract to erect edifice for the Institutional Baptist Church, Dr. C. E. Wren, pastor, for which Rahenstein & Warne, Charleston, W. Va., were reported July 26 as preparing plans; 90x152 feet; reinforced concrete; steam heat; gas and electric fixtures; cost $100,000 to $150,000.

Jackson, Miss. — Hotel. — Frank G. Jones and S. T. Carnes of Memphis, Tenn., owners of Norvelle Hotel, will arrange at once for rebuilding same on an enlarged scale.

Jackson Springs, N. C.—Hotel.—J. B. Blade is remodeling hotel building.*

Kansas City, Mo.—Hotel.—Hucke & Sexton have secured permit for the erection of proposed hotel at 15 12th street; five stories, 57x138 feet; cost $85,000.

Kansas City, Mo. — Warehouse. — F. D. Crabbs, president Union Banknote Co., has purchased site 73x115 feet on which to erect a five-story warehouse.

Kansas City, Mo. — Warehouse. — Helmers Manufacturing Co. has completed arrangements for the erection of proposed six-story warehouse, to cost $75,000.

Lafayette, La.—College Building.—Favrot & Livaudais, New Orleans, La., have completed plans for buildings to be erected by the Southwest Louisiana Industrial Institute; dormitory to be two stories, 140x55 feet; second-floor interior to be complete. Low-pressure steam or hot-water-heating plant will be installed; cost $26,500. Subcontracts will be awarded September 17.

Little Rock, Ark. — Skating Rink. — Auditorium Roller Rink Co. has been incorporated with $25,000 capital stock by A. C. Read, G. N. Peay, A. B. Poe and J. E. Osborne. A. C. Read was mentioned August 30 as having let contract to W. R. Stevens for erection of skating rink 175x130 feet; mill construction; incandescent electric lights; cost $15,000; C. L. Thompson, architect.

Llano, Texas—Masonic Temple.—Contract will be let September 15 for the erection of proposed Masonic Temple after plans by O. O. Watson, Austin, Texas; three stories, 40x110 feet; stone; electric fixtures; hand elevator; cost $13,000 to $14,000.

Louisville, Ky.—City Hall.—Peter & Burghard Stone Co. is lowest bidder at $6931 for the construction of granite base for the City Hall annex.

Lynchburg, Va. — Warehouse.—Chesapeake & Ohio Railway has let contract for the erection of proposed freight warehouse, 300 feet long, doubling the present floor space. W. H. R. Terry, Clifton Forge, Va., is supervisor of bridges and buildings.

Marion, Ky.—Church.—Contract will be let at once for the erection of edifice for the Baptist Church, for which plans have been prepared by Harris & Shopbell, Evansville, Ind.

Maysville, Ky.—School Building.—City will vote on a $60,000 bond issue for the erection of two school buildings. Address The Mayor.

Memphis, Tenn.—Warehouse.—Contract will be let about September 15 for the warehouse mentioned July 12 to be erected by Benedict, Warren & Co.; to be six stories, 60x150 or 80x150 feet; mill construction; brick; cost $90,000. It is also proposed to erect an additional story to present warehouse which adjoins.

Memphis, Tenn. — Hotel.—M. J. Gallagher has contract to erect hotel for Jas. T. Walsh, mentioned last week; 80x100 feet; fireproof construction; electric and gas fixtures; cost $25,000. Chighizola, Hanker & Cairns prepared the plans.

Mendenhall, Miss.—Courthouse.—Plans by Andrew J. Bryan, 708 Hennen Building, New Orleans, La., have been adopted for the erection of courthouse for Simpson county, referred to August 16. Building will cost $65,000 and plans will be finished by October 15.

Nashville, Ga.—Store Building and Opera-house.—J. D. Lovett has adopted plans for two-story building; first story to be used for stores and second floor for opera-house.

New Orleans, La.—City-hall Annex.—The annex to be erected to the City Hall, for which an ordinance appropriating $200,000 was reported last week to be introduced at the next meeting of the City Council, will be six stories, 118.6x90.5 feet; fireproof construction; brick with pressed brick, terra-cotta and white-marble trimmings. When the ordinance is adopted plans and specifications governing the erection of building will be prepared by W. J. Hardee, City Engineer. This will take at least 30 days, and bids will then be advertised for a period of about 30 days. If the annex is built, it is probable that the contract will be made and work commenced earlier than four months hence.

New Orleans, La.—Market Buildings.—Plans are being prepared for the proposed market buildings to be erected at Magazine and Octavia streets, Howard street and D'Hemecourt street. W. J. Hardee, City Engineer, is in charge of the work.

New Orleans, La.—School Building.—Plans have been completed by John J. Baehr and are on file at the Mechanics, Dealers and Lumbermen's Exchange for two-story brick school building 115x58 feet for the St. Francis of Assissi School.

New Orleans, La.—Cottage.—A. J. Sterling has permit for the erection of frame cottage to cost $10,200.

New Orleans, La.—Courthouse.—The courthouse previously reported to be erected, for which Brown, Brown & Marye, Atlanta, Ga., have prepared plans, as mentioned September 6, will be four stories, 250x250 feet; stone and terra-cotta; fireproof ferro-concrete construction; equipped with hot-water-heating plant; electric fixtures; electric elevator; cost $800,000.

New Orleans, La.—Pythian Temple.—Damon Castle Hall Association has been organized to erect a $150,000 Pythian building. W. G. Tebault is chairman of the finance committee.

New Orleans, La.—Skating Rink.—Nyquist & Johnston have contract at $25,800 for the erection of skating rink in the city park by James G. Dillon, 838 Canal street, for which McKenzie & Goldstein were mentioned August 16 as preparing plans.

Norfolk, Va.—Hotel.—Powhatan Hotel Co. has been incorporated with an authorized capital stock of $50,000. C. W. Tebault is president; Philip L. Grasty, vice-president.

Oklahoma City, O. T.—Building.—Oklahoma & Indian Territory Baptist Orphans' Home Association has let contract to Swatek & Parker for the erection of a portion of building; fireproof construction; cost $15,000.

Oklahoma City, O. T.—Dwelling.—Contract has been let for residence for Bishop Meerschaert of the Catholic diocese; 2½ stories, 82x85 feet; brick and stone; six bathrooms; tiled floors; cost $35,000.

Opelousas, La.—Depot.—Bids marked "Proposals for Opelousas Depot," addressed to C. C. Genung, chief engineer Opelousas, Gulf & Northeastern Railway, will be received until September 22 for furnishing material and uilding a passenger and freight depot. Plans and specifications on file at the office of chief engineer.

Port Arthur, Texas—Store Building.—Alexander & Rrunagel have contract to erect building for the Port Arthur Supply Co.; three stories, 50x140 feet; fireproof construction. A 10x10 freight elevator will be installed. Cold-storage equipment will also be included. About $30,000 will be expended.

Portsmouth, Va. — Bank Building. — John Keevan Peebles, Norfolk, Va., has prepared plans for improvements proposed for Bank of Portsmouth; to include ornamental stone front and erection of addition.

Princess Anne, Md.—Bank Building.—W. P. Pusey & Son have contract to erect proposed building for the People's Bank of Somerset county; one story, 30x60 feet; base will be of granite and the front of dark iron finished in pressed brick with Indiana limestone trimmings; cost $8000.

Sandidges, Va.—Church.—C. E. Drummond, W. P. Sutton, W. L. Smith, committee appointed by Emanuel Church, will receive bids until October 15 for the erection of a brick church. Plans and specifications may be seen by applying to the committee. Bids will be received separately for the brickwork, woodwork, painting; also for the work as a whole; all material to be furnished by the committee. Usual rights reserved.

Savannah, Ga.—Association Building.—Bids will be received until October 15 by the Young Men's Christian Association Building Committee at the office of Wallin & Young, architects, Germania Bank Building, for the labor and material required in the erection of building. Plans and specifications can be secured from architects on deposit of certified check for $25. Further information regarding bids, bond, etc., may be had at architects' office. Certified check for $2000, payable to H. D. Stevens, chairman of committee, must accompany each bid.

Searcy, Ark.—Warehouse.—Chartered: Farmers' Union Co-operative Warehouse Co., with $20,000 capital stock, by J. B. Mitchell, Carroll James, W. F. Bogard, Lee Walker and associates.

Sewell's Point, Va.—Exposition Building.—Estimates for construction of Maryland State Building will be received until September 18; applications for drawings and specifications at office of Parker & Thomas, architects, 1109 Union Trust Building, Baltimore, Md., on or before September 10. A check for $25 must be deposited with each application; $15 rebated on return of drawings. Address applications for drawings and specifications and estimates to architects.

Soddy, Tenn.—Bank Building.—Merchants and Miners' Bank, recently organized with C. W. Abel, president, will arrange at once for the erection of building.

St. Albans, W. Va.—Church.—Edifice to be erected by St. Albans Baptist Congregation, for which Rabenstein & Warne, Charleston, W. Va., were reported last week as preparing plans, will be 50x120 feet, equipped with hot-air heating plant, combination gas and electric fixtures; cost $10,000 to $12,000.

St. Louis, Mo. — Apartment Building. — St. Louis Tenement House Association is completing arrangements for the erection of the first of the proposed tenement-houses; building to be four stories, 150x275 feet; fireproof construction; cost $300,000; William Taussig, president.

St. Louis, Mo.—Apartment-house.—J. L. Wees, Commercial Building, is preparing plans and will shortly receive bids for a three-story apartment-house, 190x175 feet, to be erected by George Sauerbrunn, 612 Chestnut street; brick and stone; composition roof; hard plaster; gas and electric fixtures; marble and tile work; plate glass, cabinet mantels; cost $95,000.

St. Louis, Mo.—Apartment-house.—London Realty Co. is having plans prepared by Geo. H. Kennerly, 607 Benoist Building, for proposed apartment-house; two stories, 92x120 feet; brick and stone; hard plaster; gas and electric fixtures; iron and steel work; mantels, etc.; cost $45,000.

St. Louis, Mo.—Dwellings.—E. Priessler, 918 Pine street, has prepared plans for three two-story dwellings to be erected by the Sarpy Realty Co., Wainwright Building; brick and stone; composition roof; hard plaster; cabinet mantels, gas and electric fixtures; cost $15,000.

St. Louis, Mo.—Factory Building.—Gerhard Becker, 2904 Bailey avenue, has completed plans and will shortly ask bids on factory building for Haefele & Morgner, 100 South Commercial street; two stories, 50x80 feet; brick and stone; composition roof; electric fixtures; cost $25,000.

St. Louis, Mo.—Flat Buildings.—J. Trares has had plans prepared by Edw. T. Nolte for two three-story flat buildings, 25x60 feet; brick and stone; tar and gravel roof; hard plaster; gas and electric fixtures; cost $13,000.

St. Louis, Mo.—Store and Office Building.—Chas. S. Holloway, Benoist Building, has prepared plans for store and office building to be erected by Louis Sambucetti; two stories, 150x132 feet; brick, stone and concrete; cost $40,000.

St. Louis, Mo.—Hospital.—Board of Public Improvements is considering plans for the erection of proposed quarantine hospital. The plans submitted call for a building two stories, 56x160 feet, of brick and concrete, to cost $75,000.

St. Louis, Mo. — Parish Hall. — St. Leo's Building Co. has been incorporated with $20,000 capital stock by James T. Coffey, Thomas J. Ward, Patrick Fitzgibbon and associates. Plans have been prepared by Barnett, Haynes & Barnett for a two-story building, 72x126 feet, red brick with stone trimmings, to be used as parish hall. A gymnasium will be installed, with swimming pool, baths and lockers.

Talihina, I. T.—School Building.—Town has voted affirmatively the proposed $5000 bond issue for the erection of school building. Address Town Clerk.

Tampa, Fla. — Hotel. — Tampa and Ocala (Fla.) capitalists have purchased the De Soto Hotel site and will erect a $200,000 hotel of brick and stone. W. L. Parker is interested.

Virginia Beach, Va.—Hotel.—Princess Anne Investment Co. will erect 80-room fireproof addition to hotel; steam heat; electric and gas fixtures and electric elevator included in the equipment. Ten-ton ice plant and laundry will also be installed; Neff & Thompson, Norfolk, Va., architects.*

Washington, D. C. — Office Building. — The National Metropolitan Citizens' Bank, 615 15th street N. W., is considering plans for the erection of an addition to its new office building it is now erecting adjoining its present structure; new building to be seven stories, 40 feet frontage, and cost about $250,000. B. Stanley Simmons, architect, 931 F street N. W., prepared the plans for the building now in course of erection.

Washington, D. C.—Office Building.—David Moore, 1328 New York avenue N. W., has purchased lot at 1408 G street N. W. and will erect office building on the site; eight or ten stories, 25x113 feet; steel-frame fireproof construction; cost about $150,000.

Washington, D. C.—Hotel.—Congress Hall Hotel Co., Dr. Wm. P. C. Hazen, president, 511 East Capitol street, has commissioned Harding & Upman, architects, 729 15th street N. W., to prepare plans and specifications for hotel to be erected on Capitol Hill; six or eight stories high; 77 feet on New Jersey avenue, extending 48x100 feet through to South Capitol street and 30x75 feet through to C street; fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Washington, D. C.—Church.—Referring to church to be erected at Massachusetts avenue, 8th and B streets N. E. by Church of Pilgrims, David W. Montgomery, pastor, 804 1st street N. W., the following contractors are estimating on construction: Wm. A. Kimmel, 1516 Columbia road N. W.; Arthur Cowsill, Colorado Building, 14th and G streets N. W., both of Washington, D. C., and Baltimore Ferro-Concrete Co., Calvert Building, Baltimore, Md.; one story and basement, 40x80 feet; reinforced concrete construction throughout; tile roof; electric wiring and fixtures; heating system; James H. Warner, architect, 602 13th street N. W.

Washington, D. C.—Store Building.—Owen Owen, 423 11th street N. W., will reconstruct store building at 1315 New York avenue N. W. Electric wiring and fixtures and hot-water-heating system will be installed. T. H. Melton, 19 T street N. W.; Burgess & Parsons, 627 F street N. W.; George W. Dove, 101 U street N. W.; H. B. Sanford and J. E. Turton, 1007 K street N. W., are estimating on the work; bids to be in September 18; A. P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Dwellings.—George W. Barkman, builder, 721 A street S. E., will erect two three-story brick dwellings with hot-water-heating systems at 711 and 713 A street S. E., to cost about $10,000; W. S. Plager, architect, 3 B street N. W.

Washington, D. C.—Dwellings.—W. F. Collins has awarded contract to R. C. Hess, 17 Tennessee avenue N. E., for the construction of two two-story brick dwellings on 9th between B and C streets S. E., to cost about $9000. Electric wiring and fixtures and hot-water-heating systems will be installed; C. E. Webb, architect, Warder Building, 523 9th street N. W. Builder is taking subbids on the work.

Washington, D. C.—Store Building.—John Danhaki, 1370 C street S. E., has awarded contract to Thomas C. Henderson, Corcoran Building, 15th and F streets N. W., for the construction of two-story and basement store building with steam-heating system at 1368 C street S. E., to cost about $5000; C. A. Didden & Son, architects, Corcoran Building.

Washington, D. C.—Dwellings.—Middaugh & Shannon, 2405 1st street N. W., builders, will erect five two-story brick dwellings at 436-444 Manor place and six two-story brick dwellings at 3523-3533 Warder street N. W. to cost about $35,000. Hot-air-heating systems will be installed; Joseph Bohn, Jr., architect, Stewart Building, 6th and D streets N. W.

Washington, D. C.—Dwelling.—E. S. Newton, 2821 14th street N. W., has awarded contract to Burgess & Parsons, 627 F street N. W., for the construction of three-story brick dwelling with hot-water-heating system at 1465 Harvard street to cost about $7000; Geo. P. Hales, architect, 1430 V street N. W.

Washington, D. C.—Store and Apartments.—Huntt & Ward, 1760 P street N. W., have awarded contract to S. J. Prescott Company, 700 13th street N. W., for the construction of three-story brick store and apartment-house and two-story brick stable at 3221 Mt. Pleasant street N. W. to cost about $13,000. Slag roof, electric wiring and fixtures, sanitary plumbing and steam-heating system will be installed; Geo. S. Cooper, architect, 1413 G street N. W.

Washington, D. C.—Apartment-house.—Referring to apartment-house to be erected at 9th and A streets N. E. by Julius Egloff, 16 Tennessee avenue N. E., the following contractors are estimating on construction: Yost Bros., 1002 Pennsylvania avenue S. E.; August Getz & Son, Stewart Building, 6th and D streets N. W.; Geo. W. Barkman, 721 A street S. E., and Spitzer & Co., Home Life Building, 15th and G streets N. W.; three stories and basement; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system; W. S. Plager, architect, 3 B street N. W.

Washington, D. C.—Dwelling.—John McGregor, 729 12th street N. W., was the lowest

bidder for the construction of dwelling for F. A. Keep on R street near Sheridan Circle; three stories and basement, 42x100 feet; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-water-heating system; cost about $60,000; Wyeth & Cresson, architects, 1517 H street N. W.

Washington, D. C.—Church.—Calvary M. E. Church has awarded contract to A. J. Simpson, Round Hill, Va., for the construction of church building on Q street between 30th and 31st streets N. W.; one story, 42x100 feet; brick with stone trimmings; structural iron and steel; slate roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; W. S. Plager, architect, 3 B street N. W.

Washington, D. C.—Garage.—Wm. S. Spencer, builder, 930 F street N. W., has been awarded contract for the construction of garage on U street N. W.; two stories, 60x150 feet; stucco exterior; reinforced-concrete construction; tile and slag roof; electric wiring and fixtures; sanitary plumbing; cost about $15,000; I. D. Porter, architect, 1421 F street N. W.

Waycross, Ga.—Dwellings.—Building & Improvement Co., recently chartered by George W. Deen and John T. Myers, will construct 100 residences at a cost of $1200 each.

Whitesburg, Ky. — Bank Building. — J. H. Gibson has contract to erect building recently mentioned for the Whitesburg State Bank.

Wilson, N. C.—Cotton Warehouse.—P. L. Woodard & Co. contemplate building standard warehouses for storing cotton, to be equipped with automatic sprinkler system.*

Wilson, N. C.—Church.—A permit has been secured by the Episcopal congregation for the erection of proposed edifice to cost $18,000 or $20,000. Address The Pastor.

Wilson, N. C. — Dwelling. — Wilkins Bros. have contract to erect residence for T. M. Washington, mentioned August 9; brick and stone; cost $10,000; Wilkins Bros. & Benton, architects.

RAILROAD CONSTRUCTION.

Railways.

Albany, Ga.—Mr. H. D. Pollard, division superintendent at Macon, Ga., is reported as saying that work will soon begin on the Central of Georgia Railway's extension from Albany southwest through Baker county to the extreme southwestern corner of Georgia.

Alcolu, S. C.—Mr. P. R. Alderman, one of the incorporators of the Paroda Railroad Co., writes the Manufacturers' Record that the line will start at a point on the Alcolu Railroad about 10 miles southeast of the terminus of the Alcolu Railroad at Lynch's river, in a south and southeastern direction to Lanes, S. C., about 30 miles. At Lanes connection will be made with the Atlantic Coast Line and the Georgetown & Western Railroad. Charter will be obtained in October and work will commence at once, construction to be done by the company.

Anniston, Ala.—President W. H. Weatherly writes the Manufacturers' Record confirming the report of the incorporation of the Anniston & Columbus Railroad Co., and also saying that the names of the officers and directors were correctly given in last week's issue, all of them being residents of Anniston. The line will run via Lineville and Roanoke, Ala., to West Point and Columbus, Ga. Preliminary survey is not yet completed.

Atlanta, Ga.—Reported that application for a charter will be made by the Savannah, Statesboro & Western Railway for the purpose of building an extension of the Savannah & Statesboro Railroad to Atlanta through Bulloch, Emanuel, Johnson, Washington, Baldwin, Jones, Putnam, Newton, Rockdale, De Kalb and Fulton counties, about 210 miles. The capital will be $1,000,000. The petitioners are J. Randolph Anderson, W. W. Williamson, A. S. Guchenheimer, T. F. Walsh, Jr., and W. E. O'Connor of Savannah, with G. S. Johnston, J. G. Blitch, J. A. Brannen, R. Simmons and D. N. Bacot of Statesboro.

Birmingham, Ala.—The Louisville & Nashville Railroad Co. has, it is reported, let a contract to W. J. Oliver & Co. of Knoxville to build 25 miles of line from Hardy to Grace's, Ala., much of it being heavy work and including a double-track tunnel. The work, it is said, will cost about $1,500,000.

Blacksburg, S. C.—The South & Western Railway is reported to have engineers in the field surveying for a line from Blacksburg to Charleston, S. C., with a view to reaching the seaboard. M. J. Caples is general manager and chief engineer at Bristol, Tenn.

Bristol, Tenn.—Mr. W. A. Doane, principal assistant engineer, informs the Manufacturers' Record that the South & Western Railway Co. has let contracts for line in Tennessee and North Carolina, as follows: Walton, Witten & Graham of Graham, Va., 13 miles; Walton, Wilson, Oates & Co. of Knoxville, Tenn., 11 miles; Carpenter & Boxley of Clifton Forge, Va., 10 miles; Purcell, Allen, Sheahan & Co. of Harrisonburg, Va., 4 miles.

Charlotte, N. C.—The Southern Railway is reported to have let contract to W. J. Oliver & Co. of Knoxville, Tenn., for grading the new yards of the company at Charlotte. D. W. Lum is chief engineer maintenance of way, Washington, D. C.

Charlotte, N. C.—Mr. E. L. Propst of the Propst Contracting Co. writes the Manufacturers' Record: "We will complete four miles of railroad construction near Blacksburg for the Dravo Contracting Co. next week, being about 60 days since work started. We have a new grading outfit, about 100 teams at work on the Gaston county roads, and expect to complete five months before time for completing same."

Chattanooga, Tenn.—Regarding the report that the Southern Railway will enlarge the Citico yards near Chattanooga, an official of the company informs the Manufacturers' Record that the work is only temporary. Thirteen stub-end spur tracks will be built abreast of the present yard, and no grading is required. Work will be done by company's forces.

Chesapeake City, Md.—The Delaware Interurban Railway Co. is reported chartered to build a road from Wilmington, Del., to Elkton and Chesapeake City, Md., with a probable extension to Chesapeake Haven, where the Chesapeake Land Improvement Co. proposes to establish a resort.

Cullman, Ala.—The Cullman & Southwestern Railroad Co. has been chartered to build a line through Cullman, Jefferson and Walker counties to connect the Louisville & Nashville with the Frisco and the Southern. It will run from Cullman to Bryan and will traverse the northwestern mineral district. The incorporators are William Mode Cook, Alfred W. Lilliendahl and G. H. Ten Broeck.

Harriman, Tenn.—The Harriman Construction Co. has received a contract to double-track the Cincinnati, New Orleans & Texas Pacific Railway for two and one-half miles from Harriman Junction to Emory Gap and around Tunnel 26 George W. Goodrich and James E. Rodes compose the company.

Dallas, Texas.—Construction is to begin within 30 days, it is reported, on the Dallas-Sherman interurban railway.

Danville, Va.—An officer of the Southern Railway writes the Manufacturers' Record confirming the report that surveys have been made for a line between Dry Fork and Danville, Va., but no decision reached as to building. W. H. Wells is engineer of construction, Washington, D. C.

Denison, Texas.—The Patton & Gibson Company, Ltd., of Pittsburg, Pa., is reported to have been awarded contract for revision of line and grade on 50 miles of the Missouri, Kansas & Texas Railway between Denison, Texas, and Atoka, I. T. S. B. Fisher is chief engineer of Missouri, Kansas & Texas at St. Louis, Mo.

Dixon, Ky.—Right of way has been secured for nearly the entire line of the proposed railroad from Green River via Sebree to Dixon, about 20 miles. Irving H. Wheatcroft of the Kentucky Valley Railroad, extending from Providence to Wheatcroft, is back of the scheme.

Fort Worth, Texas.—Regarding the incorporation of the Citizens' Railway & Light Co. of North Fort Worth and Arlington Heights, Mr. G. E. Montgomery, one of the directors, writes the Manufacturers' Record that the new company takes over the Arlington Heights Traction Co. of 6 miles and the North Fort Worth & Rosen Heights line of 12 miles; also the Citizens' Light & Power plant. The company intends building an interurban railway from Fort Worth to Mineral Wells. The directors are Warren Bicknell of Cleveland, Ohio; J. R. Harper, E. W. Christy and Carey B. Close of Toledo, Ohio; W. O. Allen of Fostoria, Ohio; Sam Rosen, George E. White and George E. Montgomery of Fort Worth, Texas.

Frederick, Md.—A meeting of the Washington, Frederick & Gettysburg Electric Railway Co. has been held, and it is stated that grading contracts will be let within 10 days for the first 10 miles from Frederick to Lewistown, Md. Grading may also begin at Thurmont and work southward to Lewistown. D. Columbus Kemp is president; Alex. Ramsburg, first vice-president; Chas. Wertheimer, second vice-president; Charles C. Waters, secretary, and Dr. Franklin B. Smith, treasurer.

Galveston, Texas.—An official of the Gulf, Colorado & Santa Fe Railway Co. writes the Manufacturers' Record confirming the report that the company will relay the main line from Galveston to Houston with 85-pound steel rails, the present rail being 61 and 66-pound.

Glen Jean, W. Va.—Mr. P. M. Snyder of Mt. Hope, W. Va., is reported as saying that construction has begun on the proposed electric railway from Glen Jean to Kilsythe, eight miles. Will McKell is the principal promoter.

Goldsboro, N. C.—The Southern Railway is reported to have been granted right of way from Little River bridge to the west end of the Southern's yards at the foot of Beach street. W. H. Wells is engineer of construction Southern Railway.

Griffin, Ga. — Reported that the Indian Spring & Florida dummy line will be extended to Griffin over the right of way of the proposed Griffin & Monticello Railway. W. F. Smith is president of the road, and is reported as saying that his line has secured control of the route necessary for its extension.

Guthrie, O. T.—The Denver, Enid & Gulf Railroad has completed its extension to Medicine Lodge, Kan., giving a through line of about 150 miles from Guthrie.

Jackson, Miss. — The Claremore Railroad Co. is reported to have made application for a charter to build an electric line from Jackson, Miss., to Clinton, with a lateral line to Coopers Well from the latter point; also a line from Jackson to Brandon, with several branches. The incorporators are R. K. Jayne and M. Culbertson of Jackson and M. Walker of Brandon.

Lancaster, Ky.—Burton Vance of Louisville, who proposes to build an electric railroad from Hubble to Hickman, has applied for a franchise to run through Lancaster.

Lawton, O. T.—The Lawton Interurban & Street Railway Co. has been chartered with $100,000 capital to build an interurban electric railway from Lawton to Fort Sill and other points in Comanche county. The incorporators are Frank Broadwell, Frank McMasters, Phil McGrory, B. F. Bowman and George Short.

Louisville, Ky. — The Board of Commissioners of Floyd county has granted rights of way to the Louisville, New Albany, French Lick & West Baden Traction Co. and to the Louisville & Northern Railway & Lighting Co. for building electric lines to Paoli, French Lick Springs and West Baden.

Louisville, Ky.—The Evansville & Cannelton Traction Co. has been incorporated in Indiana to be part of a system which will connect with New Albany and Louisville. The incorporators are Charles C. Tennis, C. H. Battin, F. W. Cook, George A. Cunningham, M. S. Sonntag, M. B. Harper and Gustave Muhlhausen. Messrs. Tennis and Battin are members of the Tennis Construction Co.

Mangum, O. T.—Reported that the Colorado, Texas & Mexico Construction Co. has contract for building the proposed Colorado, Texas & Mexico Railroad from Mangum to Abilene, Texas, 269 miles. Morris R. Locke is president, and John M. Blackburn, chief engineer.

Meherrin, Va.—The Lunenburg Lumber Co. has completed about 14 miles of railroad, and has, it is said, ceased construction for the present.

Milltown, Ga.—Charles J. Peeler, president of the Georgia Land & Industrial Co. of Milltown, and others will, it is reported, build an electric railway from Milltown to Valdosta, Ga., the water-power of the Banks Mills having been purchased to generate electricity.

Mobile, Ala.—The Mobile & Western Railroad Co. is reported to have been incorporated to build a railroad from a point on the Mobile & Bay Shore line through Mobile county to the Mississippi State line. The incorporators are B. K. Mann, director and president, and C. L. Thompson of Muskegon, Mich.; W. H. Anderson, Grand Rapids, Mich.; directors, W. H. Mann, Elkhart, Ind., secretary and treasurer; H. A. Filkins, Grand Rapids, Mich.; E. W. Atwood; G. W. Atwood, vice-president and general manager, and George H. Steiner of Mobile.

Morehead, Ky.—Reported that the Morehead & West Liberty Railroad, now being completed from Morehead to West Liberty, will be further extended through Morgan, Wolfe, Magoffin and Knox counties into the vicinity of the Elkhorn coal fields, about 125 miles. Part of the survey was made several years ago when the line was first proposed.

Nashville, Tenn.—Mr. T. M. Steger, president, is reported as saying that preliminary survey is being made for the Nashville & Huntsville Railroad, which will be about 110 miles long. Contracts for building, equipping and operating the road have been executed and construction is to begin at an early date.

Nashville, Tenn.—Reported that C. Stone King of Nashville has been awarded contracts by the Nashville, Chattanooga & St. Louis Railway to build two spurs from the Sparta branch to reach openings of the Consolidated Coal Co.

Newkirk, O. T.—The Newkirk, Tonkawa & Southern Electric Railway Co. is reported to be pushing plans toward the construction of its proposed line from Newkirk to Oklahoma City. The stockholders are T. S. Smith of Newkirk, president; Moses P. Brown, Oklahoma City, O. T., first vice-president; E. G. Warfield, New York, N. Y., second vice-president; J. S. Kerfoot, secretary, and Howard Elder, both of Oklahoma City.

New Orleans, La. — The New Orleans & Northern Midland Railroad Co. is reported chartered with $6,000,000 capital to build a railroad to the Ohio river, where connection will be made with the Big Four. H. O. True of Memphis, Tenn., is president, and Thomas Reber of Natchez, Miss., general manager.

New Orleans, La.—Engineers for the electric line to run from New Orleans to St. Bernard, 15 miles, will, it is reported, begin work within a few days. Wm. J. Kelly and others are interested.

Oakland, Md.—The Savage River Railroad Co. has organized and contemplates an extension from Bond. The directors are Ninian U. Bond, Fred A. Thayer, John W. Bond, Stephen G. Ashby, Alexander Reitz, Edward H. Sincell and Benj. H. Sincell.

Norman, O. T.—Local merchants are reported to be making efforts to secure the Frisco's line, which is to extend from Oklahoma City to Wichita Falls, Texas, to pass through Norman. J. F. Hinckley is chief engineer of the Frisco at St. Louis, Mo.

Oliver Springs, Tenn.—It is stated that G. W. Callahan, who is reported to have contract for building the extension of the spur track of the Southern Railway to the Eagle Coal Co.'s mines in Big Mountain, has a large force of men at work. W. H. Wells is engineer of construction Southern Railway, Washington, D. C.

Paris, Texas.—The Manufacturers' Record is informed that it is practically decided that the Oklahoma Central Railway Co. will build its line from Lehigh, I. T., to Paris, Texas. Options on right of way have been completed and construction is to begin at both ends of the line. The Paris Board of Trade is to furnish right of way from Red river through the county and terminals in the city of Paris. Ed. H. McCulstion is mayor.

Parkersburg, W. Va.—The Manufacturers' Record has received official information confirming the report that the Baltimore & Ohio Railroad will make improvements to its terminals at Parkersburg. About two and one-half miles of new tracks will be constructed and about two miles rearranged. A number of buildings will also be erected. D. D. Carothers is chief engineer at Baltimore, Md.

Pensacola, Fla.—A. A. Ericson and A. Eliasburg of Salem, Ala., who have applied for a charter to operate a street railway in Pensacola, are reported as saying that they propose to continue the line from their Beach Haven property to Mobile, Ala. Others in New York are said to be interested.

Point Pleasant, W. Va.—Mr. H. Fernstrom, chief engineer, informs the Manufacturers' Record that survey is being made on the south side of the Kanawha river by the Deepwater Railway Co., but that no action has been taken toward construction.

Sterrett, I. T.—Reported that 323 acres of land has been deeded to the Oklahoma Central Interurban Railway for building an interurban railway from Sterrett to Kemp, about 15 miles, thence to the Oklahoma Central Railroad, now in course of construction in Red river bottoms. It is stated that the line when completed will extend from Sterrett to Sulphur, and thence to Marietta. I. S. Murray is the promoter.

St. Marys, Fla.—Application has been made to charter a railroad from St. Marys to Kingsland, 10 miles, among the incorporators being Capt. L. Johnson, J. R. Bachlott and R. L. Bunkley of St. Marys, besides others of Waycross, Ga.

Sulligent, Ala.—A Chicago lumber company will, it is reported, build a branch-line railroad from Sulligent to Henson's Springs, in Lamar county. It is also stated that an effort will be made to have the line extended to Hamilton.

Valdosta, Ga.—It is reported that contract will soon be let for building the connecting links in the Georgia & Florida Railway from Valdosta to Augusta. John Skelton Williams is president at Richmond, Va.

Waycross, Ala.—The Penn Bridge Co. of

Beaver Falls, Pa., has, it is reported, been awarded the contract to build the Atlantic Coast Line's new yards at Waycross. The same company is building the railroad's new shops here.

Street Railways.

Albany, Ga.—Joseph P. Roman of Atlanta, for Western capitalists, has, it is reported, applied to the City Council for a franchise to build an electric street railway in Albany.

Albany, Ga.—Reported that Joseph P. Roman of Atlanta, representing Western capitalists, has made application to the city council for franchise to build an electric street railway.

Brunswick, Ga.—The General Construction Co. of Atlanta will, it is announced, build the proposed street railway under the franchise granted some time ago to J. H. Neff of Florida. Financial arrangements are said to be complete.

Columbia, S. C.—The North Columbia Land Co. has contracted with the Columbia Electric Street Railway Co. to build a two-mile extension through its property. Gadsden E. Shand is engineer and Alfred Wallace is superintendent of the railway.

El Paso, Texas.—Frank Tobin of El Paso and others of this city have applied for a franchise to build about 15 miles of electric street railway and also propose to extend the line to Ysleta.

Knoxville, Tenn.—The Knoxville Railway & Light Co. will, it is announced, build lines to Vestal and Lyons View, besides constructing other line improvements.

Oklahoma City, O. T.—John W. Shartel, general manager of the Oklahoma Street Railway Co., is reported as saying that the West Main street line will be extended; also that the proposed interurban will be extended northward to Britton, and if profitable it will be continued to Guthrie.

Richmond, Va.—Tracklaying has begun on the Virginia Passenger & Power Co.'s line to the State fair grounds.

Starkville, Miss.—Mr. C. E. Ard, professor of physics at the Mississippi Agricultural and Mechanical College, informs the Manufacturers' Record that the Starkville Street Railway Co. is financed locally and has secured all franchises. Line will be about two and a half miles long and will run from Starkville to the college; expected to be in operation by Christmas.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Alcohol Machinery.—W. S. Hanson, Busch, O. T., wants addresses of manufacturers of equipment for making denatured alcohol.

Automatic Sprinklers.—See "Fire-protection Apparatus."

Bagging.—Cohutta Talc Co., Dalton, Ga., wants to purchase a quantity of bags made from 11-ounce burlap; to be about the size of a coffee bag and suitable to hold 200 pounds powdered soapstone.

Barge. — John H. Hoyt, Delaware, N. J., wants to buy a good second-hand flat-top barge 75 feet to 100 feet long suitable for carrying 25,000 to 30,000 feet logs. Would want as close to Brunswick, Ga., as possible, as it will be operated on the Ocmulgee river at Abbeville, Ga.

Belting. — James A. Dezell, Mt. Pleasant, Fla., wants 55 feet 12-inch five-ply rubber belt; second-hand preferred if in good condition.

Boiler.—Texas Fuller's Earth Co., Dallas, Texas, wants 150-horse-power boiler. Address T. L. Bradford. (See "Engine and Boiler.")

Bottling Machinery.—Turner & Aymard, De Funiak Springs, Fla., want prices on bottling machinery.

Bridge Construction.—Bids will be received until October 10 for a bridge (either steel or concrete) over Opequon creek between Berryville and Winchester, Va.; plans and specifications on file; P. McCormick, secretary Berryville Turnpike Co., Berryville, Va.

Bridge Construction. — Caroline County Commissioners, Denton, Md., will open bids September 25 for the construction of a reinforced concrete bridge over the Choptank river at Greensboro, Md. Bidders will submit plans and specifications. Each bid must be accompanied by a certified check for $500. Usual rights reserved; William D. Uhler, road engineer.

Bridge Construction.—Ingram-Day Lumber Co., Lyman, Miss., wants about 80-foot span for crossing river with railroad.

Bridge Construction.—Bids will be received until October 1 by T. H. Hood, clerk, Greenville, Miss., for the construction of a steel bridge across Yazoo river at Belzoni, Miss.; plans and specifications on file in clerk's office. Usual rights reserved.

Building Materials. — Mobile Construction Co., Room 1, 56 North Royal street, Mobile, Ala. (engaged in all kinds of construction work, especially hollow concrete stonework), wants catalogues and prices on all kinds of construction material.

Building Materials.—P. L. Woodard & Co., Wilson, N. C., want catalogues of material used in the construction of cotton-storage warehouses.

Button Machinery.—E. E. Swalley, 221 40th street, Avondale, Ala., wants button machinery.

Coke Ovens.—Wilson Coal Co., 910 Postoffice Square Building, Boston, Mass., wants material for the construction of about 200 coke ovens.

Contractors' Equipment.—Frank Page, engineer Aberdeen & Ashboro Railway Co., Biscoe, N. C., wants to rent for two months about 20 to 30 small dump cars for hauling dirt for use in constructing the Carthage & Pinehurst Railway.

Conveying Machinery.—American Manufacturing Co., Atlanta, Ga., wants dealers' prices on second-hand slab conveyor.

Conveyors.—See "Fuller's-earth Plant."

Conveyors.—St. Mary's Gravel Co., Atlantic Trust Building, Norfolk, Va., wants conveyors to load vessels with gravel.

Corn Mill.—West-Stegall Grain & Commission Co., Montgomery, Ala., wants cornmeal mill (roller). (See "Feed Mill.")

Crematory.—City of Wilmington, N. C., invites correspondence for the construction of a 30-ton capacity crematory. Address W. E. Yopp, chairman committee on sanitation.

Driers.—See "Fuller's-earth Plant."

Dry-kiln. — American Manufacturing Co., Atlanta, Ga., wants dealers' prices on dry-kiln to take 10,000 feet of 20-foot stock.

Dump Cars. — See "Contractors' Equipment."

Electrical Equipment.—Fort Smith Furniture Manufacturing Co., Ed Ballman, secretary, Fort Smith, Ark., wants dynamo.

Electrical Equipment.—Bryan Cotton Oil Co., P. S. Grogan, president, Hearne, Texas, wants electrical equipment.

Electrical Equipment.—West-Stegall Grain & Commission Co., Montgomery, Ala., wants electric dynamo.

Electric-light Plant.—J. B. Blades, Jackson Springs, N. C., wants to contract for electric-light plant for hotel.

Electric-light Plant.—Construction Committee, O. E. Newman, chairman, will receive bids until October 10 (postponed from September 19) at the People's National Bank, Manassas, Va., for constructing electric-light plant. (See "Paving, etc.")

Elevator.—E. A. Edenfield, Stillmore, Ga., wants prices on elevator.

Engine.—West-Stegall Grain & Commission Co., Montgomery, Ala., wants gasoline engine.

Engine. — W. S. F. Tatum, Hattiesburg, Miss., wants one twin engine, steam feed, 12-inch or 14-inch, to give carriage 70-foot travel. (See "Sawmill.")

Engine.—American Manufacturing Co., Inc., Atlanta, Ga., wants dealers' prices on second-hand 12x36 Corliss engine. State condition, lowest price and make. Must be in good condition and not too old.

Engine and Boiler.—Texas Fuller's Earth Co., Dallas, Texas, wants a 125-horse-power engine and 150-horse-power boiler. Address T. L. Bradford.

Engines.—John R. Martin, chairman street committee, Farmville, Va., wants prices on engines.

Feed Mill.—West-Stegall Grain & Commission Co., Montgomery, Ala., wants feed mill. (See "Corn Mill.")

Fire-department Equipment.—City of Apalachicola, Fla., wants to purchase 2000 feet 2½-inch fire hose, one hose wagon and harness. Address City Clerk.

Fire-protection Apparatus.—P. L. Woodard & Co., Wilson, N. C., want catalogues of automatic sprinkler system for cotton warehouse.

Fuller's-earth Plant.—Texas Fuller's Earth Co., Dallas, Texas, will want mills for preparing the earth, dryers and conveyors; capacity 50 tons daily. Address T. L. Bradford.

Furniture, etc. — J. B. Blades, Jackson Springs, N. C., wants to purchase furniture, carpets, etc., for hotel.

Ginnery Equipment.—J. F. Standley, Groveton, Texas, wants machinery for cotton gin of 30 bales capacity daily.

Grate Bars. — James A. Dezell, Mt. Pleasant, Fla., wants 20 square feet grate bars for burning sawdust; second-hand preferred if in A1 condition.

Grist Mill.—J. F. Standley, Groveton, Texas, wants grist mill.

Heating Apparatus.—R. N. Roark, president Kentucky State Normal School, Richmond, Ky., wants addresses of firms installing central steam-heating plants for small towns.

Hoisting Engine. — Crawford Bros., P. O. Box 484, Stamford, Texas, want an eight-horse-power gasoline traction engine with hoisting rig or rope drum attached for pulling houses.

Hoisting Engines.—Vermont Slate Co., Granville, N. Y., wants two double-drum Lidgerwood or Flory hoisting engines for immediate delivery.

Hoisting Equipment.—Galveston Creosoting Co., Galveston, Texas, wants a derrick or crane, either self-propelling on traction wheels or one which could be placed on a cotton float and hauled by mules; second-hand preferred if in good condition.

Ice Machinery.—J. P. Wetherbee, Lock Box 106, Waynesboro, Miss., wants price on a five-ton compressor ice plant complete and installed; buildings not included.

Ice Plant.—Turner & Aymard, De Funiak Springs, Fla., want prices on equipment for a 6 to 10-ton ice plant.

Ice Plant.—J. B. Blades, Jackson Springs, N. C., wants to contract for small ice plant for hotel.

Ice Plant.—Princess Anne Investment Co., Virginia Beach, Va., wants prices on 10-ton ice plant in hotel.

Laundry Machinery.—Turner & Aymard, De Funiak Springs, Fla., want prices on laundry machinery.

Laundry Machinery. — J. R. Greenwalt, Welch, W. Va., wants complete equipment for steam laundry; capacity $200 a week.

Laundry Machinery.—H. A. Holliman, Sandersville, Ga., wants catalogues on laundry machinery.

Laundry.—Princess Anne Investment Co., Virginia Beach, Va., wants prices on installation of laundry in hotel.

Logging Equipment.—See "Railway Equipment."

Lumber.—E. K. Vietor, Box 555, Richmond, Va., will give consideration to offers for lumber for building 76x185 feet, with warehouse of 10,000 square feet of floor space; to be delivered at Manchester, Va.

Machine Tools.—Capital Gas Engine Co., Maryland and Delaware streets, Indianapolis, Ind., wants one No. 3 universal milling machine, one 60-inch horizontal boring machine, one 36-inch gear cutter, one 10x72-inch plain grinding machine, one 42-inch x 14-foot planer and one wet tool grinder; second-hand in good condition preferred.

Mattress Machinery.—John B. Reynolds, Atlanta, Ga., wants addresses of manufacturers of machinery for making cotton mattresses.

Mill Supplies.—Bryan Cotton Oil Co., P. S. Grogan, president, Hearne, Texas, wants shafting, pulleys, etc.

Mill Supplies.—Fort Smith Furniture Manufacturing Co., Ed Ballman, secretary, Fort Smith, Ark., wants mill supplies.

Paving.—Improvement District No. 6, F. W. Mullins, chairman, Texarkana, Ark., will open bids September 20 for grading, gravel-ing, curbing, guttering and draining one and one-eighth miles of streets. Profiles and specifications may be seen at office of J. E. Daugherty, engineer. Certified check for $500 must accompany each bid. Usual rights reserved.

Paving.—Corporation of Chase City, Va., will receive bids until October 1 for laying brick sidewalk 2200 feet long and 4 feet wide. For plans and specifications call on or write to J. W. Swift, A. J. Yancey and T. E. Roberts, committee.

Paving.—Board of Public Works, Jacksonville, Fla., will open bids October 1 for furnishing the material and doing the work of grading, curbing and paving with vitrified bricks or blocks of some standard brand various streets. All work and material to be in accordance with the plans and specifications therefor on file in the office of Board of Public Works. Forms of bids will be furnished on application to Philip Prioleau, city engineer. Certified check for 2 per cent. of each bid, payable to P. A. Dignan, chairman of Board, must accompany each bid. Bids must be addressed to P. A. Dignan, chairman, and endorsed "Proposals for Brick Paving." Usual rights reserved.

Paving, etc.—Construction Committee, O. E. Newman, chairman, will receive bids until October 10 (postponed from September 19, as reported August 16) at the People's National Bank, Manassas, Va., for macadamizing streets, constructing water-works and electric-light plant. Bidders will bid on work as a whole, and for each class of work separately. Specifications can be had by applying to the chairman and depositing $3. Usual rights reserved.

Piping. — James A. Dezell, Mt. Pleasant, Fla., wants 60 feet four-inch steam pipe, with globe valves, etc.

Plumbing Supplies.—J. B. Blades, Jackson Springs, N. C., wants to contract for bath-tubs, radiators and general plumbing for hotel.

Railway Equipment.—Southern Purchasing Agency, Valdosta, Ga., wants 1000 to 1200 tons 56 or 60-pound steel relay rails for Southern delivery.

Railway Equipment.—Long Pole Lumber Co., Bluefield, W. Va., wants 65 tons 30 or 40-pound relay steel rails.

Railway Equipment.—W. S. F. Tatum, Hattiesburg, Miss., wants three miles of 56 or 60-pound steel rail, either new or relay with splices, and three miles 35 or 40-pound steel rail, either new or relay with splices. Will accept wire offers if relay rail is guaranteed in good condition and immediate shipment guaranteed.

Railway Equipment.—James A. Dezell, Mt. Pleasant, Fla., wants two tons 12-pound rail, axles and wheels for log car; second-hand preferred if in good condition.

Rock Crusher.—John R. Martin, chairman street committee, Farmville, Va., wants prices on rock crusher.

Roofing.—James A. Dezell, Mt. Pleasant, Fla., will purchase 100 squares corrugated roofing; second-hand preferred if in first-class condition.

Roofing.—E. K. Victor, Box 555, Richmond, Va., will probably buy composition roofing and will give consideration to samples and prices; to be delivered at Manchester, Va.

Roofing and Siding.—E. A. Edenfield, Stillmore, Ga., wants prices on crimped iron, corrugated iron and tin roofing.

Sawmill. — W. S. F. Tatum, Hattiesburg, Miss., wants plans and machinery complete for single-band mill with carriage to cut timbers 65 feet long; space to be allowed in building for gang saw if wanted later, also one twin engine, steam feed, 12 inches or 14 inches, to give carriage 70 feet travel; one five-block carriage 40 feet long in two sections; one heavy edger 48 inches wide.

Sewerage System.—Henry B. F. Macfarland, Henry L. West, John Biddle, Commissioners, Washington, D. C., will receive bids until September 20 for constructing sewers in the District of Columbia. Forms, specifications and necessary information may be obtained at Room 43 District Building, Washington, D. C.

Sewerage System.—Henry B. F. Macfarland, Jay J. Morrow (acting), Commissioners District of Columbia, Washington, D. C., will receive bids until October 2 for constructing sewers in the District of Columbia. Forms, specifications and necessary information may be obtained at Room 43 District Building, Washington, D. C.

Sewing Machines.—G. C. Baldwin, Hoffman, N. C., wants to correspond with parties relative to equipping a plant with sewing machines and other necessary machinery for the manufacture of overalls, trousers, shirts, etc.

Shingle Machinery.—Century Development Co., Charles M. Bell, manager, Salisbury, N. C., wants descriptions and prices of complete equipment for making shingles, except power.

Soap Machinery.—R. W. Gadd, Wilson, N. C., wants soapmaking machinery.

Stave Machinery.—See "Woodworking Machinery."

Steam Plants.—See "Heating Apparatus."

Structural Iron and Steel.—Rhode Island Company, Spray, N. C., wants to correspond with parties furnishing wrought and cast-iron material for cotton-mill construction.

Telephone System.—J. B. Blades, Jackson Springs, N. C., wants telephone equipment for hotel.

Traction Engine.—See "Hoisting Engine."

Turpentine Equipment.—Silas Lucas, Wilson, N. C., wants information regarding machinery for extracting turpentine from lightwood and pine wood.

Water-wheel.—John H. Ritter, Highfalls, N. C., wants a water-wheel; has eight-foot head of water and wants a wheel that will pull a sawmill.

Water-works.—Construction Committee, O. E. Newman, chairman, will receive bids until October 16 (postponed from September 19) at the People's National Bank, Manassas, Va., for constructing water-works. (See "Paving, etc.")

Water-works.—City of Ada, I. T., J. P. Wood, Mayor, will receive plans and specifications from engineers until October 9 for the construction of water-works and sewerage system, for which $40,000 will be expended.

Water-works.—Town of Edinburg, Va., J. D. Lemmon, Mayor, will receive bids until October 2 for the construction of a gravity system of water-works. Certified check for $250, payable to the Mayor, must accompany each bid. A synopsis of specifications showing amount and character of the work will be sent on application, and complete copies of plans and specifications may be seen at the engineer's office. For further information address W. A. Wrenn, chairman, Edinburg, Va.

Wire Rope.—Frank Page, engineer Aberdeen & Ashboro Railway Co., Biscoe, N. C., wants 2500 feet five-eighths to three-quarters wire rope.

Woodworking Machinery.—See "Sawmill."

Woodworking Machinery.—O. D. Murray & Co., Claremont, N. C., want wood-planing machine all complete with molding attachment.

Woodworking Machinery.—Hiett Plow Co., Dryden, Ark., wants two second-hand 36-inch solid lower wheel Fay & Egan band saws, one band-saw set machine and one knife-grinding machine.

Woodworking Machinery.—Shields & Weeks, Hawkins, Texas, want a three-saw gang edger.

Woodworking Machinery.—American Manufacturing Co., Atlanta, Ga., wants dealers' prices on second-hand combination planer for dressing and matching molding and timber-sizing double surfacer, one three or four-saw gang edger, live and dead rolls, one lumber trimmer and stave machinery; all second-hand.

INDUSTRIAL NEWS OF INTEREST

Chicago Pneumatic Tool Co.

Owing to the rapidly-increasing demand for its products throughout the South the Chicago Pneumatic Tool Co. of Chicago, Ill., has established an office at 1012 Memphis Trust Building, Memphis, Tenn., in charge of J. Francis Small.

Metal Concrete Chimney Co.

The Metal Concrete Chimney Co. has changed its location to the Chemical Building, St. Louis, Mo. This company has recently been doing some excellent work in its particular line. Its change of offices gives it a more advantageous location than heretofore.

Southern Saw Works' Offices.

The Southern Saw Works announces the removal of its offices from East Point, Ga., to Atlanta, Ga., where correspondence should in future be addressed. The company has Post-office Box No. 826. It is well known as a manufacturer of solid and inserted-tooth circular saws.

Atlas Construction Co.

The Atlas Construction Co., manufacturer of a reinforced concrete chimney, has recently changed its address from the Missouri Trust Building to 912 Victoria Building, St. Louis, Mo. By this change the company gets the increased office room necessitated by the growth of its business.

New York Agents for Scaife Filters.

Messrs. Buell & Mitchell, 120 Liberty street, New York, have been appointed New York representatives of the Scaife water filters manufactured by the Wm. B. Scaife & Sons Company of Pittsburg, Pa. They will maintain a large display room, showing the various styles and sizes of filters in actual operation.

New Exhibitors in the Bourse.

The Steel Mill Packing Co. of Detroit, Mich., manufacturer of metallic packing, and Messrs. Barwood & Snyder of Philadelphia, furnishers of complete equipments for machine shops, have taken space in the exhibition department of the Philadelphia Bourse at Philadelphia, Pa., and will show their respective products.

"Hornsby-Akroyd" Engines Selected.

The borough of Kutztown, Pa., after operating a municipal lighting plant for some time, is increasing its capacity by the installation of a 125-horse-power "Hornsby-Akroyd" oil engine. The present plant consists of a 65-horse-power "Hornsby-Akroyd" oil engine belted to generator. Both engines were supplied by the De La Vergne Machine Co., New York.

The J. A. Prescott Company.

The J. A. Prescott Machinery Co. is now occupying its new office in the Chemical Building, St. Louis, Mo., this location being more central than its previous one. The company represents a number of manufacturers of mining machinery, and is in a position to install complete mining plants. Mr. Atwood Benton, a well-known mining engineer, is manager of the company.

The Johns-Manville Company.

A small fire occurred at the Brooklyn (N. Y.) plant of the H. W. Johns-Manville Company on the evening of August 30. In spite of some exaggerated accounts which appeared in the New York newspapers, the damage was comparatively small, and the fire has not in any way interfered with the business of the company, as the department affected was in operation by noon of the following day.

A Selden-Breck Contract.

The Selden-Breck Construction Co., Fullerton Building, St. Louis, Mo., has erected a three-story office building in Memphis, Tenn., for the Wood estate. It is a modern building in every particular. Another contract, also embodying all that is new in building construction, was the 16-story annex which the Selden-Breck Construction Co. built for the Missouri Trust Building in St. Louis.

Goulds in St. Louis.

The Goulds Manufacturing Co. of Seneca Falls, N. Y., the well-known builder of pumps, recently established an office in St. Louis, Mo., in the Chemical Building. Mr. H. C. Dudley, the manager of the branch, said recently that considering the length of time the office had been established, the results so far were quite satisfactory, while the prospects for business in future were unusually reassuring.

Cost Plus a Fixed Sum.

The Citizens' Bank of Alameda, Cal., has awarded contract for construction of a large new reinforced concrete bank building to Frank B. Gilbreth of New York, upon whose advice it was decided to build the entire structure of reinforced concrete, making it earthquake-proof as well as fireproof. The work will be done on the basis of cost plus a fixed sum, the only basis on which Mr. Gilbreth solicits and executes work.

Big Contract for Cement.

An indication of the quantity of cement being demanded for construction work in the South is seen in a big contract awarded last week to the Mitchell-Powers Hardware Co. of Bristol, Tenn. The contract is for the delivery of 8000 barrels of cement, the cost approximating $25,000, each barrel holding about 400 pounds of cement. This cement will be used in bridge and culvert construction by railway contractors now working near Bristol.

Capital Wanted for Mineral Developments.

Capitalists desirous of investing in Southern mineral developments are invited to correspond with Robert J. Bell, secretary of the Attala Oil & Mineral Co., Ethel, Miss. Mr. Bell has a 50-year charter for a development corporation and leases on 2400 acres of land which are said to have all the surface indications of gas and oil, besides strong indications of other minerals. It is the intention to dispose of sufficient stock to purchase equipment and engage experienced men to thoroughly exploit the property and ascertain its full value.

Southern Jellico Fuel Co.

Reference was made last week to the organization of the Southern Jellico Fuel Co. Mr. J. L. Williams, president of the company, has been engaged in the Southern coal industry for 20 years, and he will have charge of the offices at Jellico, Tenn. Vice-President and General Manager D. W. Jones, for 10 years manager of the sales department of the East Tennessee Coal Co., will have charge of the sales department. This company intends in the near future to acquire lands in the Jellico district and mine its own coal, but is at once prepared to supply steam users with Jellico and Blue Gem coals.

For Heating and Ventilating.

The heating and ventilating apparatus for the large department store of the Knott Dry Goods Co., Nashville, Tenn., is to be furnished by the B. F. Sturtevant Company of Boston, Mass. The heating plant of the new 12-stall roundhouse for the Southern Railway Co., Asheville, N. C., is to be furnished by the B. F. Sturtevant Company. The boiler-room equipment of the Kansas City Portland Cement Co., Independence, Mo., will include two standard economizers and an induced-draft apparatus consisting of two steel-plate fans with direct-connected engines, all to be manufactured by the B. F. Sturtevant Company.

Joined the Atlas Engine Works.

Announcements from the Atlas Engine Works of Indianapolis, Ind., tell of interesting accessions to the selling force of that company. They refer to Howard E. Troutman as having been appointed to the sales management of the Corliss and high-speed-engine department, and to J. M. Broucher as appointed assistant general manager of sales of the Atlas Engine Works. Mr. Troutman was with the Buckeye Company of Dayton, Ohio, for 10 years, and for several years manager of the Chicago office. Mr. Broucher resigned his connection with the Brownell Company of Dayton to go with the Atlas enterprise.

H. M. Byllesby News.

Messrs. H. M. Byllesby & Co. of Chicago have been retained as consulting, designing and supervising engineers for the modern gas plant being built by the Indiana Steel Co. (United States Steel Corporation) at Gary, Ind. Mr. George F. Maddock, formerly general superintendent of A. L. Ide & Sons, Springfield, Ill., and for some time past practicing consulting engineer, Marquette Building, Chicago, has joined the engineering staff of H. M. Byllesby & Co. Mr. Samuel C. Shaffner, formerly engineer and general manager of the Illuminating Company of Mobile, Ala., has joined the engineering staff of H. M. Byllesby & Co. Mr. O. A. Farrar, formerly engineer of Allis-Chalmers Company, has joined the engineering staff of H. M. Byllesby & Co., and has charge of the reconstruction work of the large modern electric-lighting plant which the firm has contract for at Mobile, Ala. Mr. R. G. Hunt, formerly manager and engineer of the San Diego (Cal.) Consolidated Gas & Electric Co., has joined the engineering staff of H. M. Byllesby & Co., and will be located at the Chicago office.

Wastefulness of Chimney Draft.

The following statement is of interest: "In a discussion of the methods for the utilization of waste heat the wastefulness of the usual method of producing draft by the ascent of heated air in a chimney must be considered. Taking the boiler as the wasteful member in a steam plant, its efficiency varies from 60 per cent. in a bad boiler to 80 per cent. in a very good one, these proportions of the heat produced by the combustion of the coal being realized in steam available for the engine in each case. The difference may be said to go up the chimney. It is not to be disputed that much of the waste heat might be caught and utilized, but there are reasons why it is not so caught. In the first place, the gases must be hot when they go into the chimney, or there will not be a draft. As a matter of fact, a draft got in this way is the most expensive possible save one. The exception is a steam jet in the chimney. A fan can be run for about one-tenth of the power represented by the waste heat required to command a good draft. A tall chimney will cost from $5000 to $25,000—very much more than will a fan plant. But the fan is not used and the chimney is, largely because it is essential to discharge the products of combustion high up in the air over the roofs of surrounding houses. This necessity must be taken into consideration in so far as factories are concerned, but it does not hold good of steamships, yet we believe that in some cases a chimney stack of 100 feet high would be sufficient, because with a fan combustion will be more easily controlled than is possible with the chimney to the end of preventing the giving off of smoke." The B. F. Sturtevant Company of Boston, Mass., can furnish additional information.

TRADE LITERATURE.

Evidence As to Roofing Plates.

A booklet that will interest people concerned in high-grade roofing plates is "Evidence," issued by the Merchant & Evans Company of Philadelphia, New York and other cities. It presents a list of users of the various brands of roofing manufactured by the company named.

New Pneumatic Tool Catalogue.

The new catalogue of the Chicago Pneumatic Tool Co. of Chicago, Ill., will be received from the printers about September 15. This new book of descriptions of the company's pneumatic tools, air compressors, cranes, tools, etc., will have 118 pages, printed in two colors. Several new types of compressors are shown, including the company's new Hamilton-Corliss machines. Requests for a copy are invited.

Trussed Concrete Literature.

A typical example of reinforced concrete factory construction as applied to the demands of the automobile industry is the principal article in the September number of the Trussed Concrete Bulletin. This bulletin is always of interest to people who are concerned in the advances which concrete construction is making in connection with factory buildings as well as other structures. The Trussed Concrete Steel Co. of Detroit, Mich., will send copies to applicants.

"The Standard" Basculas.

A catalogue just issued by the Standard Scale & Supply Co. of Pittsburg, Pa., will meet with favor in countries where the Spanish language is used. It contains descriptions and illustrations of "The Standard" scales, for which there is a good demand now in the Spanish-American republics south of the United States, and doubtless the circulation of this new catalogue will result in increased orders, as it will enable users of scales in those countries to select equipments with satisfaction.

New Stanley-G. I. Literature.

New Stanley-G. I. literature has been issued as follows: Bulletin No. 618, devoted to the Stanley-G. I. short arc lamp. This lamp measures only 15½ inches over all in height and is particularly desirable for use with low ceilings. Circular No. 735, devoted to Stanley-G. I. 60-cycle single-phase induction motors. These motors are built in various sizes from ¼-horse-power to 15-horse-power. Circular No. 781, describing the "G. I." Type "J" primary fuse box or transformer cut-out. This device is made up to 30 amperes, 2500 volts capacity. Write the Stanley-G. I. Electric Manufacturing Co. of Pittsfield, Mass., for these bulletins.

High Efficiency Units.

"Some Notes on High Efficiency Units by the Manufacturer" is the title of a pamphlet which is a reproduction of a paper read by Max Harris before the Ohio Electric Light Association at its twelfth annual convention at Put-in Bay, Ohio, last month. It is an interesting and instructive bit of literature in relation to the Nernst system, starting with a brief description of the article itself and describing some methods of marketing; the demand by the consumer is then taken up, and finally some notes on the value and utility of the lamps to the central station are presented. Probably the Nernst Lamp Co. of Pittsburg, Pa., can supply copies of the pamphlet.

Technical Paints for Metal.

The essential requirements of a paint for the protection of metal are the leading considerations in manufacturing it. Some paints will give the best service under certain conditions, but fail under different conditions; hence the paint manufacturer must know all the conditions in order to give the best results. It must be known what sort of surface will receive the application; what kind of exposure the paint will be subjected to; whether it is on exposed surfaces; whether it gets sun or water exposure, or both; what kind of gases or acids it is liable to come in contact with, and other facts are also necessary. Paint decay is usually caused by poor surface and improper application, the sun, moisture, mechanical injury, abrasions, expansion, contraction, deleterious gases, electrolysis, peeling. All these factors and others are taken into consideration in "The Review of Technical Paints for Metal," which is now being distributed. This treatise is by Frank P. Cheesman, member American Society for Testing Material and Society of Chemical Industry, and it is published by the National Paint Works, specialists in paints for metal surfaces, Williamsport, Pa. For over 30 years this company has been originating and manufacturing paints for the protection of metal surfaces, and it is always ready to frankly tell purchasers the principal pigments and other materials in its paints and the reasons why they are used. It may be added that nearly 50 per cent. of the company's output is composed of paints made up on its customers' specifications. The publi-

cation referred to is most complete in the attention it gives to this subject of paints for the protection of metal wherever used, and no consumer can afford to remain ignorant of the data which it presents, together with the statements of results obtained by some of the best-known industrial enterprises in this country, including the Westinghouse Companies of Pittsburg, the elevated railroads of Chicago, the Niagara Falls Power Co., the owners of the Louisville and Jeffersonville bridge, and many others of prominence. Southern users of metal protective paints will be interested to know that the National Paint Works' products have recently been specified for the Southern Express Co.'s office building at Salisbury, N. C.; the Warren county courthouse, Warrenton, N. C.; for Southern Railway Co. work generally and various other work throughout the Southern States. If you are interested in technical paints for metal, a perusal of the review to which attention is directed cannot fail to be of profit. Write the National Paint Works at Williamsport, Pa., for a copy.

IMPROVEMENTS AT SELMA.

Adding to the Advantages of the Alabama City.

[Special Cor. Manufacturers' Record.]

Commercial and Industrial Association, Selma, Ala., September 7.

Although we have as pure and as good water as any Southern city, the supply coming from artesian wells from 600 to 800 feet deep, yet our public-spirited Mayor is not content with this alone, but is determined that Selmians shall have cheap water also. To this end the City Council has passed an ordinance authorizing the issue of bonds for the purchase of the water-works from the present owner, and negotiations have been opened with capitalists in the North looking to the purchase of these bonds. The details are being arranged, and it is given out that a most satisfactory price to the city has been agreed to. There can be no doubt that the bonds present a most attractive investment, for, what with the improvement going on here now in building houses, paving streets and extending the electric car lines, Selma is in a fair way to increase her population within the next five years to more than 50 per cent. Progress which is marked by economy is most enduring.

A few years ago electricity as a power was practically unused in this city. But recently many plants have entirely discarded their old steam boilers and put electric motors in their place. The latest to adopt this plan is the Union Iron Works Co., one of the largest and most completely equipped machine shops in the city. This concern has been experimenting with electricity for some time past, and recently the decision was reached to replace the antiquated boilers entirely with new power. The plan that will be installed by this company is to place individual motors to each machine, and it is claimed that the cost of operating under the new order of things will be materially decreased. The heavy shafting, which under the old system was such a drag upon the boilers, will be entirely displaced and taken out as soon as the new motors are all in place. The current for the operation of the plant will be furnished by the Selma Lighting Co., and that concern is now busy installing a good deal of new machinery which will be used in generating current which is now proving too heavy a load for their present equipment.

With the close last Friday of the cotton business year the balance-sheet of Selma's ledger makes a remarkable showing of gains, and no failures. The outlook for the year just entered is exceedingly bright and promising. It is confidently believed we will handle 125,000 bales of cotton before the close of the year. During the past 12 months Selma received 107,580 bales of cotton. To figure this amount of cotton at $45 per bale it has meant in actual money to this city $4,841,100. Of the cotton received in Selma last year there is now in stock at the different warehouses in the city 15,094 bales. The receipts of this city during the past commercial year is not a bad showing by any means when it takes into consideration that the year was what some cotton men term a bad year.

The Selma meat and milk ordinance, which was passed by the City Council some months ago, went into effect Saturday morning, and from now on the patrons of the market are assured that they will eat good and healthful meat. Along with the meat and milk ordinance there was passed a bill providing that a union slaughter-house should be erected. Bids for the buildings were advertised for by the city some weeks ago, and several are now in the hands of the committee which has the matter in hand. These bids will probably be opened at the next meeting of the City Council, and very likely the contract will be let. Dr. J. T. Connor, a veterinary surgeon who for a number of years past has had charge of the government's experimental station at Uniontown, has been secured by the city as meat and milk inspector and entered upon his duties this morning.

The committee of the Commercial and Industrial Association, which has the matter of paving Broad and Water streets in hand, will begin active work upon this important question next week. The majority of the property-owners along the two streets in the business part of the city have signified their willingness to help the city in the matter of bearing the expense which will accrue from the paving of these two streets. This committee of the Commercial and Industrial Association, together with a committee of the City Council, will report favorably upon the question at the next meeting of the City Council, and it is thought at the same meeting the City Clerk will be authorized to advertise for bids for the paving of these streets, and that actual work on the streets will be begun by Christmas.

J. T. SLATTER, Secretary.

West Virginia's $1,000,000 Pottery.

The million-dollar pottery which has been in course of construction at Newell, W. Va., during the past year is approaching completion, and is expected to be in operation not later than December 1. This is one of the most important industries now being located in the Ohio valley, its owner being the North American Manufacturing Co. of Newell and East Liverpool, Ohio. Newell is almost opposite East Liverpool, which is the center of the pottery industry in this country. The capacity of the plant is represented by 13 bisque and 17 glost kilns, their size making the equipment practically a 36-kiln pottery. The main buildings are 300 feet wide and 600 feet long, which does not include the power plant, decorating kilns or offices, which are in separate buildings. All the machinery will be driven in batteries from separate electric motors. The power plant will contain boilers of 800 horse-power capacity and will drive all the electrical equipment for the pottery, the street railway, the lighting of Newell, besides furnishing the necessary steam heat for the pottery. There will be eight 66-inch by 16-foot full arch-front tubular boilers. The bisque kilns were erected by Messrs. Gamble, Surles & Co., the glost kilns by Hill & Wallace, and the entire clayworking machinery equipment was furnished by the Patterson Foundry & Machine Co., these three companies being of East Liverpool, Ohio. About $5000 was the cost of the iron work on the kilns, and the complete equipment of machinery will cost about $100,000. As indicated above, the entire plant will represent an investment of $1,000,000. When manufacturing begins the company expects to employ at once about 1000 workmen.

Big Panama Contract.

The Panama Lumber & Trading Co. of New Orleans, La., received contract last week to furnish 8,000,000 feet of lumber of various kinds, to be delivered at Panama for construction work required on the Canal. Proposals were opened in Washington by the Isthmian Canal Commission, and the New Orleans company's bid of $234,741.65 was accepted, the award being made through S. B. Lupton, Washington representative. This is but one of a number of important contracts for Panama Canal construction materials which have been awarded to Southern dealers and manufacturers.

Charleston Steamship Co.

At the recent annual meeting of the stockholders of the Charleston Steamship Co. of Charleston, S. C., the management reported a net profit of 25 per cent. on the company's first year's business. This company operates a steamboat from Charleston to Georgetown, S. C., where connections are made with other boats for Baltimore, Md. Its directors believe that there is a promising opportunity to extend operations and have a steamer line direct to Baltimore, and it is proposed to increase capital stock to $100,000 in order to effect this. Steps are now being taken to this end.

The Dunlop Milling Co.

In referring to the Dunlop Milling Co.'s flour, meal, grits and hominy plant last week it was inadvertently stated that the mill is located at Dunlop, Tenn. The Dunlop Milling Co. is a Clarksville (Tenn.) enterprise, and it is in that city that its modern milling facilities are being established.

For Theater Architects.

Mr. H. L. McPherson of Hopkinsville, Ky., advises the MANUFACTURERS' RECORD that he wants addresses of experienced architects for theaters. Prompt correspondence may result in receiving an award for plans and specifications.

Notes on Metallurgical Mill Construction. Edited by W. R. Ingalls. Published by the *Engineering and Mining Journal*, 505 Pearl street, New York. Price $2.

The material embodied in this useful compend consists of a complete reproduction of the various articles and papers on modern practice in mill construction in its many phases which have appeared at various times in the columns of the *Engineering and Mining Journal*. The subject has been handled exhaustively by eminent experts in the mining profession, and has also undergone a most thorough and careful revision by Walter Renton Ingalls, the editor. The data in its new and improved form combines in comprehensive style every detail involved in the construction of concentration mills, cyanide plants and smelting works. The volume is copiously illustrated, including numerous diagrams, which will prove of great practical value to all millmen and smelters. The table of contents is as follows: Brickwork and concrete, building construction, ore-crushing machinery, dryers and drying, conveyors and elevators, disposal of tailings, miscellaneous.

Messrs. Fiske & Robinson, bankers, New York and Boston, inform the MANUFACTURERS' RECORD that the gross earnings of the Gulf & Ship Island Railroad for August were $194,356. For the same month last year they were $145,658. For the two months July and August the gross earnings were $383,514. For the same months last year they were $319,508.

Messrs. Pilling & Crane of Philadelphia, Pittsburg and New York have issued an attractive plaque showing in striking manner the increase between 1830 and 1905 in the production of pig-iron in the United States from 165,000 tons to 22,992,380 tons and the increase in production per capita in the same period from 28 pounds to 619 pounds.

It is reported that a new steamship line to be operated between New Orleans and Galveston and Vera Cruz, Mexico, will be organized at New Orleans.

The Progressive League of Utica, Miss., has been organized with Messrs. F. J. Kelly chairman and T. A. Marshall secretary and treasurer.

Engineers in charge of the improvements at Southwest Pass, La., want $1,000,000 for work to be done in 1908.

In 1905 this country produced 4118 tons of manganese ore, of which Virginia produced 3947 tons.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD, Baltimore, Md., September 11.

During the past week the Baltimore stock market has been dull. In the trading United Incomes, Maryland Trust certificates, sold from 69½ to 69⅞; the United funding 5s from 88¾ to 88¼, and the United 4s from 89½ to 89⅛; Consolidated Gas 6s changed hands at 105¼, and the 4½s at 99 and 99¾; Seaboard new common from 25⅞ to 26⅜; the new second preferred at 56½; Seaboard 4s from 87 to 86¾; the 10-year 5s from 102 to 101¾; the 3-year 5s at 99½. Cotton Duck 5s sold from 84 to 83½; G.-B.-S. incomes from 36½ to 37¾; do. 1sts from 59½ to 60½.

Citizens' Bank sold at 29; Bank of Baltimore at 114; Union Bank, 113; Commercial and Farmers' Bank, blue certificates, 140; Mechanics' Bank, 27; United States Fidelity, 120; Continental Trust, 195; International Trust, 150; Maryland Casualty, 56.

Other securities were traded in as follows: Charleston Consolidated Electric 5s, 95 to 94¾; North Baltimore 5s, 116; Detroit United 4½s, 93¾; Atlantic Coast Line 4s, 98¼; do. Connecticut 4s, certificates, 5-20s, 90; Newport News & Old Point 5s, 98¼; Baltimore Brick common, 8; Anacostia & Potomac 5s, 104¾; Baltimore City 3½s, 1930, 103; Georgia Southern & Florida first preferred, 98; Comas Cigarette Machine common, 7½; Consolidation Coal, 95 to 96; Carolina Central 4s, 96⅝; Georgia & Alabama Consolidated 5s, 108½; Canton Company, 93; Northern Central Railway, 105; Houston Oil common, 8¾; Baltimore, Sparrows Point & Chesapeake 4½s, 96; Suffolk & Carolina 5s, 99¼; Central of Georgia First Consolidated 5s, 110⅞.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended September 11, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line of Conn.	100	...	355
Georgia Southern & Florida	100	30	...
Georgia Sou. & Fla. 1st Pfd.	100	97	98¼
Georgia Sou. & Fla. 2d Pfd.	100	80	84
Norfolk Railway & Light	25	17½	19
Seaboard Company Common	100	25	...
Seaboard Company 2d Pfd.	100	55	57½
United Railways & Elec. Co.	50	14¼	14¾
Bank Stocks.			
Citizens' National Bank	10	29	30
Commercial & Far. Nat. Bank	100	...	130
Com. & Far. Nat. Bk., Blue Ctfs.	100	140	142
German Bank	100	107½	109
Merchants' National Bank	100	178	...
National Bank of Baltimore	100	113½	114
National Howard Bank	10	12½	...
National Mechanics' Bank	10	...	29

[For Additional Financial News, See Pages 38, 39 and 39a.]